One-Design Class Sailboat Handbook

Albert from Mimi
September 3, 1966

ONE-DESIGN CLASS SAILBOAT HANDBOOK

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ROBERT SCHARFF

ONE-DESIGN CLASS SAILBOAT HANDBOOK

G. P. Putnam's Sons New York

Published simultaneously in the Dominion of Canada by Longmans Canada Limited, Toronto.

Library of Congress Catalog
Card Number: 61-12744

MANUFACTURED IN THE UNITED STATES OF AMERICA

Contents

Section I

CHAPTER 1

What Is A One-Design or Class Boat?

The term "one-design" for sailboats means that all boats of that class have been constructed to the same set of specifications and measurements. In other words, each boat in a class is as similar to its sister ship in sailing characteristics and dimensions as possible. This means that, within a class, success in racing depends upon the skill of the skipper rather than upon his ability to pay for expensive refinements built into his craft. It also means you may race in competition on an even basis—no handicap system required—almost anywhere that you find a group with boats of your class.

The fun, thrills and the sport that await the one-design sailor are boundless. Mostly they are involved with racing, Americans being born competitors. A one-design race is highly organized, with a set of rules that have been distilled from centuries of experience in seas crowded with sail. Good boatmen with well-tuned boats and sailing skill win. In the one-designs age and sex has nothing to do with winning of race. Sailors win the championship of their fleet and go on to win the championship of their district and then the national crown—and, in some of the one-design classes, the international. A student or office boy in his late teens can find himself sailing for the championship of the world in his class in Rio de Janeiro or Naples or Tokyo or in the Olympic games.

Successful sailboat racing is more than a sport. While you do not obtain the speed that you do in outboard racing, it is an art which challenges both the body and the mind of those who seek to excel in it. For the keenest competitors (both experts and enthusiastic beginners) it is the greatest fun on earth. Just a generation ago sailboating was known as the sport of millionaires. One didn't have to have a title to get into the act, but a small fortune was a virtual necessity, for those were the days when the

keen racing was in boats of fifty feet and over, manned largely by professional crews. Today the keenest competition is in boats twenty feet or less. Moreover, in contrast to when boating was the sport of the privileged few, the most popular classes now are one-designs.

The most popular of all one-design classes is the Snipe, a 15½-footer, sailed by a crew of two, and which costs about $1,000 when new. There are more than 13,500 of them throughout the world, with the greatest numbers spread from one end of the United States to the other. Winning the Snipe class world championship is one of the greatest plums in boating and almost anyone can afford to compete. By thus broadening the competition, victory in these small boats is actually more difficult and hence more rewarding than it was for yesterday's owner of a 70-footer to lead a handful of well-heeled rivals.

Keen racing can be had in even smaller boats. The 11-foot Penguin, a class of thousands around the world, offers excellent competition at a cost of less than $600. These and other sailboats are frequently sailed the year round, even in northern states. The hardy sailors who race in the winter up north are known as "frostbiters" (see Chapter 4 for further details). Of course, some one-designers are better for the beginner than others. For this reason, it's a good idea to talk to members of a class and find out the level of competition of that class before purchasing any craft.

But the one-design class doesn't have to be raced to have fun. One-design sailors have a wide choice of boats, too. You can find boats suitable for racing as well as day-sailing. But, if you want to comfortably go day-sailing, or if you're a beginner in racing, or especially if you want your family to learn to like sailing, don't pick too extreme a racing type of boat. Buy a one-design boat of the day-sailer type with a comfortable cockpit to sit in, not one where you have to hang out over the rail and make with the acrobatics to keep it right side up. A boat on the heavy and beamy side is better for the afternoon-sailing family, or for the beginner, than the ultrafast types. Even though you don't want to race at first, you may later. In other words, with a one-design class sailboat, you can sail for fun and still race in competition if you wish.

In addition to the racer-day sailer, the one-design principles are employed in the construction of cruising-racing boats. In cruising craft,

The Snipe (*left*) is the largest one-design class in the world. The Penguin (*right*) is another big class

however, an owner's individual requirements, the amount of gear placed aboard and his choice of sails make it more difficult to maintain one-design principles as a basis to even-up racing. Most boats of this style (Chapter 8 contains more information on one-design cruising boats) are raced in handicap events (see Chapter 5).

Earlier it was stated that all boats in a given class are built as close to each other as possible. With the possible exception of fiberglass hulls, it is almost impossible to build two boats absolutely alike, no matter how hard you try. But they are one design. Measurements are held to within strict tolerances. These tolerances can be a help to the amateur, but they can also be used by professional builders, following one extreme or another of the allowable tolerances, to create slightly different boats. This has been the cause of controversy in some classes, and to overcome this some associations kept the building to tolerances known only to the boat's designer and the association's chief measurer. Cheating or chiseling on such points is kept to a minimum by the refusal of a measurement certificate. Some classes are the exclusive property of a single builder and can then be built similar in every detail.

In addition to construction changes, there are sometimes varied ways to change the rig or fittings of a one-design boat to make it go a bit faster than the other craft of the same class. For example, bronze centerboards, streamlined and slotted masts, greater number and lighter frames, variable area rudders and hosts of other seemingly minor changes will undoubtedly increase the speed of one that has these improvements over one that doesn't. Actually, one of the most difficult problems in any one-design class is just that; to remain one-design. Many classes start with that ideal, and slowly little deviations and changes creep in, none apparently large enough to matter, but in the aggregate appreciable. Then the fight for "improvements" begins, and holding the line becomes increasingly difficult. Eventually it is found that the top-notchers of the class have incorporated numbers of variations which the rank and file feel they must copy if they are to stay in the running. A person, product or organization blind to change is doomed, since change is inherent in, indeed almost synonymous with, life. Any knowledgeable and understanding sailor, on having a reasonable experience with almost any boat ever built, could suggest improvements. The object of the class is, how-

The start of one-design Lightning class race

ever, to encourage competition between boats as close to identical as it it reasonably possible to build them. There is a very definite place for the development classes in which variations and innovations are allowed, even encouraged, and a useful purpose is served by such classes, but as the objects of a one-design and of a development class are different they should be kept separate, and not confused.

As we can see from Section II, many of the more popular one-designs are represented by associations. These have been founded by owners joining together for mutual protection and exchange of ideas. The association then draws up the measurements and specifications, and conducts sanctioned class events. These may include local, regional, national and, in some cases, world-championship regattas. A few associations are large, formal affairs, administered by a paid executive secretary, while the majority are smaller and more informally run by a devoted group of class owners. Most of them publish newsletters and yearbooks that are of great interest and value to the owners.

Class boats can be purchased ready to sail, or can be constructed from raw materials with the help or plans or—in case of some classes—can be assembled from kits. When building a boat from scratch, fully detailed plans are obtained from the class secretary for a set fee ($10 and up) per set. This fee must be paid by every boat built, whether by amateur or professional, and is often referred to as a "number tax" since each and every class usually must pay it or be legally liable for infringement of the design. It also covers registration, the designer's royalty, the actual cost of the plans themselves and—in some class associations—the first year's membership.

If a new boat is bought from a professional builder, he should be asked to notify the class secretary of the sale, and the purchaser should also write, giving the boat builder's name and date of transaction. If that boat has paid its number tax, there is no charge for registering it in the owner's name. The transfer will, however, not be officially recorded until the tax has been paid. It is the responsibility of the builder to pay the number tax, so purchasers should make sure that the tax has been paid. But, before a boat—whether purchased ready-made, assembled from a kit or built from scratch—can take part in a class race, it must be inspected and approved by a member of that association (generally a member of the class measurement committee) to make sure that it conforms to class specifications, and to grant measurement certificate. Once approved, a number is assigned by the class association and is sewn on the mainsail along with the class insignia. This is the number under which the boat races regardless of how many times the craft may change ownership. If a boat is purchased or sold secondhand, notice should be sent to the secretary by both parties. There is usually a nominal fee charged for changing the name of registration.

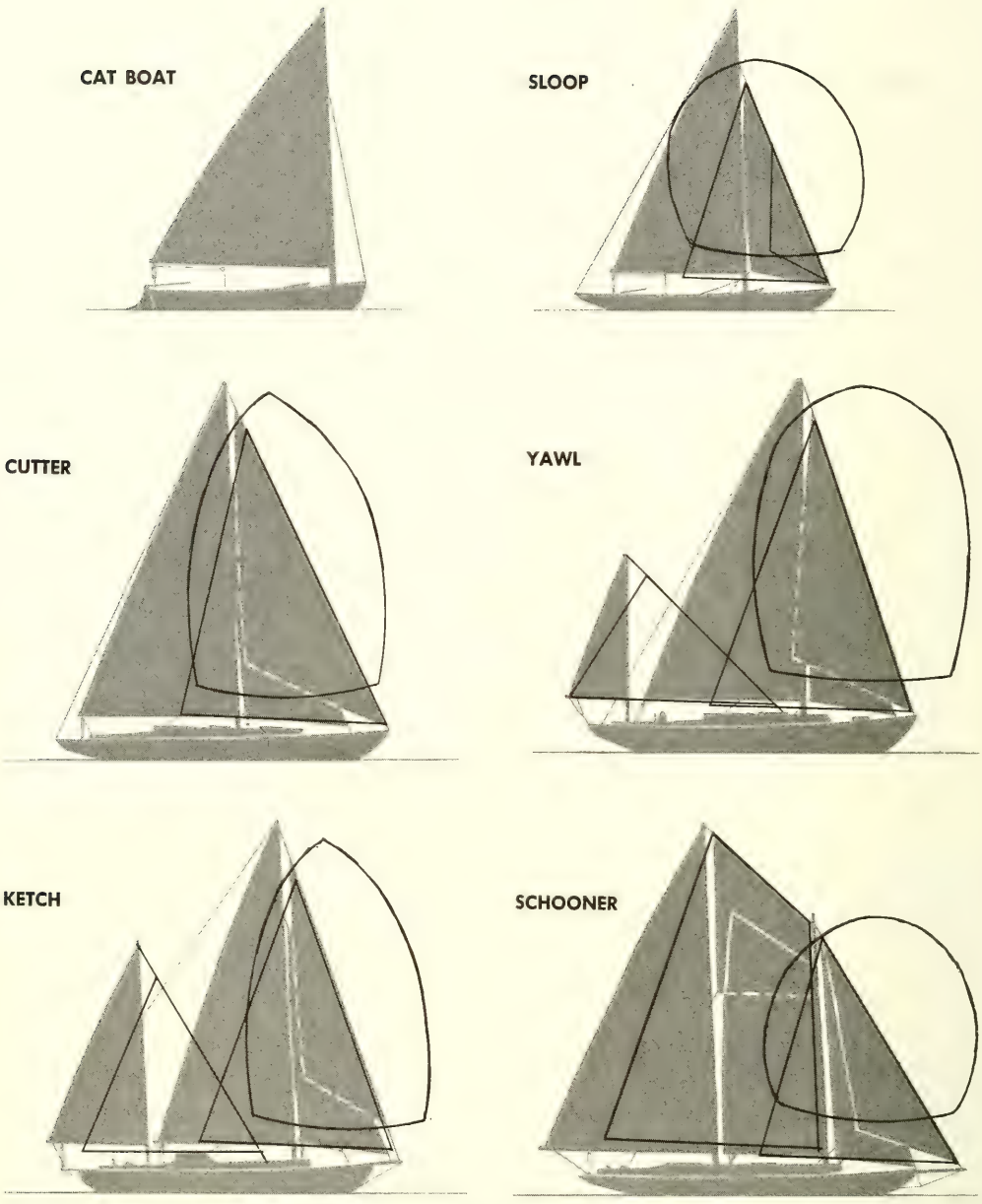
Ownership of class boat and membership in a class association have many advantages. In addition to the way in which these associations enforce their class rules and promote well-run, well-organized racing, they also serve to bring sailors with common interests together socially at class meetings and regattas, and they protect the value of any boat in the class. By strict enforcement of the rules and maintaining standards, by registering boats and keeping a record of them, the association protects the buyer

A great deal of fun racing (*left,* Class "D" Dyer Dinks) and just plain sailing (*right,* the Sprite class) can be had in small one-design sailboats

Many one-designers make excellent day sailers. The Explorer-class boat shown at the left is one of them. It can also be used for overnight camping when you employ a boom tent (*right*)

and seller when a class boat changes hands, and tends to keep the value of boats up over the years. A one-designer is generally a wise boating investment if suited to the sailing area and if other boats of the same class are nearby. Actually, a well-maintained, one-design racing sailboat depreciates very little through the years, and many built before World War II are selling for more now than they cost new. The open-design sailboats and powerboats depreciate in value and in relative performance just as automobiles do. But the one-design boat retains its value. This is especially true if the boat has a good racing record. This competitive factor is very important in the price of a used boat. Also, a numerous class in an area will be more in demand because of the greater racing competition it offers than a class with only a few boats.

As you can see from Section II, there is a large number of one-design classes, and for the beginner this can cause a certain amount of confusion. Where to start, and how to make a choice from among all the names of birds, animals, fish, heavenly bodies, naval architects and geographical locations? These questions can be partly answered in the next chapter. But, since most one-design fleets are affiliated with local yacht clubs and organizations, it is suggested that a prospective sailboat owner select a class that is common in the area to assure racing competition and perhaps the benefit of a local sailing-instruction program. For instance, you won't have as much fun sailing a Blue Jay in waters where all of the sailing is done in Snipes. Even if you purchased the craft at a very favorable price, it's no bargain unless you can get every possible enjoyment out of it. Therefore, hang around the water front, talk to owners, and—in particular—see which sailboats are sailing and racing.



Major types of sail rigs

CHAPTER 2

Selecting the Class Boat Best for You

Although sailing is one of the most ancient of man's developed skills, and for centuries saw few basic changes in its essentials, it has not remained static. In modern times many changes and advances in materials and technique have taken place and new concepts have been brought to the field. But rig and hull shape still play a large part in the performance characteristics of any sailboat.

BASIC SAILBOAT RIGS

To most landlubbers, any craft with sails is "a sailboat." Such terms as "sloop" or "ketch" are not understood. But, since sailboats now abound to the point where you often can scarcely see the water for the sails, it's time that we learned to be more discriminating in our choice of terms. The "rig," or sail plan of a boat, usually determines its classification. Let's consider the rigs in order of simplicity.

Catboat. Has a single mast, forward in the boat, and carries a single sail called the "mainsail" (mains'l). This type rig is the simplest and easiest with which to learn. However, this rig won't sail very closely into the wind and coming about, and going from one tack to the other is sometimes difficult. Most of the familiar small sailing dinghies are cat-rigged.

Sloop. Has a single mast, and in addition to the mainsail carries one or more jibs forward of the mast. The sloop gives better control than the catboat because the sail area is broken up into two or more sails, which makes handling easier. If properly designed, this is the fastest of the rigs. In addition to the working headsails, lightsails—such as a Genoa jib and a spinnaker—can be set when racing. The hull of a sloop is leaner than that

of a cat and has more overhang. Its fastest point of sailing is with the wind on the beam.

Cutter. Has one mast, but it's stepped proportionately farther aft; its regular suit of sails probably calls for two jibs, the inner called a "staysail" flying under the jibsail.

Yawl. In recent years, the yawl rig has found high favor with ocean-racing fans. This is a handy rig with the sails divided onto two masts. The shorter of the two is called the "mizzenmast," and is stepped aft of the rudderpost. The same light sails carried on the sloop and the cutter may be set, plus a hard-pulling mizzen staysail. In ordinary weather, the mizzen sail is useful on all points of sailing except on a very broad reach, where it may disturb the flow of air to the mainsail. In bad weather, the mainsail may be reefed or even furled entirely, yet the boat will remain in perfect balance with the mizzen sail offsetting the headsail. The yawl rig is used in medium-sized boats sailed on open water where speed is secondary to ease of handling.

Ketch. Similar to the yawl, except that the mizzenmast is proportionately larger and is stepped forward of the rudder. This makes a fine, easily handled cruising boat with the sails divided into handy sizes. The rig is a favorite among deep-sea voyagers. Its only disadvantage is that the mizzenmast comes either in the middle of the cockpit, where it obstructs working and lounging space, or against the after-cabin bulkhead, where it interferes with access to the cabin.

Schooner. This rig is seldom designed today. It requires a larger crew, but when the wind is coming in abeam and sails are set full, the boat really races through the water. There are many fine, used schooners available, with countless variations of rig; almost all are two-masted and the aftermast is always the taller. The most common rig carries two jibs, a gaff foresail with a small "fisherman's staysail" over it, and the mainsail. A great variety of other sails can be used, from a spinnaker to a "gollywobbler"—a large fisherman's staysail set between the masts.

CENTERBOARD VS. KEEL

Sailboat hulls are divided into two definite shapes—"centerboard" and "keel." The main function of both is to furnish lateral resistence to keep

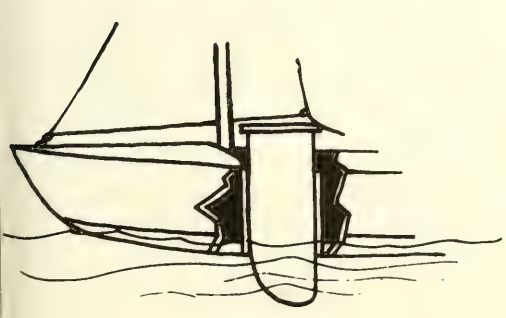
the boat from sliding sidewise through the water. There the resemblance ends.

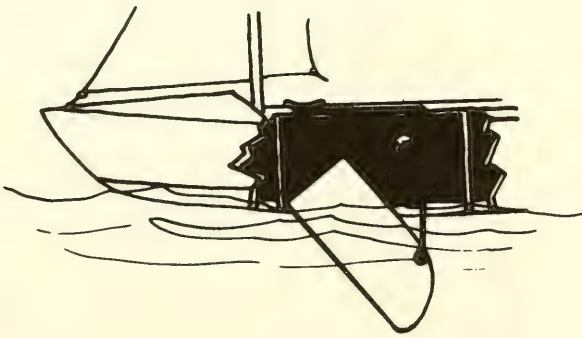
The centerboard hull is shallow and has a wood, fiberglass or metal plate which moves up and down through a box on the centerline. Standard centerboards, the most commonly used type, are fitted with pins at their forward, lower corners. At the after, upper corner of each, there's a line or chain arranged to control, about one third of the way down, the depth of the centerboard.

Another style of centerboard which is often found in small class boats, is the dagger type. This type requires a trunk and slot, but it isn't hinged. It's bodily lowered or raised. In fact, it can be entirely lifted out when the boat isn't being sailed. Adjustments are provided so that the depth of the centerboard below the bottom can be controlled, and often the slot and trunk are somewhat longer than the centerboard is wide so that the latter can be shifted forward or aft to provide perfect balance in relation to the center of sail pressure.

When sailing in very shoal water or before the wind, and when at anchor, the centerboard is raised up into the trunk so that little, if any, of it projects below the bottom of the sailboat. However, no boat will sail well when the centerboard is up unless dead before the wind. For stability, this type of boat relies on its wide beam and the weight of the crew. A centerboard craft can be easily capsized, but this is counteracted by the knowledge that it won't sink if swamped. Furthermore, it is relatively inexpensive to build and maintain, and its light weight and fairly flat bottom make it easy to trailer. The draft of centerboard sailboats can be as little as three inches.

Two types of centerboards—the standard type (*left*) and daggerboard type (*right*)





The keel in a small sailboat is built as an integral part of the hull and has a ballast weight attached to its bottom. There are two basic types of keels: fin keel and deep, or full, keel. The majority of the keel sloops described in Chapter 6 are of fintype. In the simplest form, this type of keel has the appearance of a dagger centerboard that has been lowered all the way and fixed in place. Generally it's an iron casting with a cigar-shaped bottom, actually as ballast. But, the fintype keel can't be lowered or raised. Whatever its distance below water, that's the minimum depth of water in which you can sail. Most fin keels, even on small craft, require a draft of at least two feet.

The deep or full keel is usually triangular shaped when viewed from the side. The apex of the triangle is at the bow and the base is aft. Lead or iron ballast, in the form of a casting, is attached at some point along the bottom of the keel. This type of keel has a great deal of lateral-plane area, is very strong, and is very stable due to the fact that ballast is positioned low. Actually, because of heavy ballast of both types of keel boats, they have immense stability and this helps to keep them on proper sailing lines. The chief disadvantages of this type are that they will sink if swamped and are exceedingly difficult to transport.

If you have a choice between a sailboat with a keel and one with a centerboard, it should be remembered that each is a good craft if used under the circumstances for which it was designed. In an area where the water is uniformly deep, the keel boat is generally preferable. If the water is thin, the centerboard type is the best craft. The latter is also the better if extreme speed is desired. Suppose two boats are built to the same lines and equipped with the same sail plan. On one, a centerboard is a board; in the other a keel is installed. The craft with the centerboard will be the faster on all points of sailing except to windward, while the greater underwater area of the keel boat will allow it to point higher into the wind and make less leeway. Before the wind, the centerboard boat can be raised, thus reducing the wetted surface. When coming about, the centerboard craft will be somewhat quicker because it has less area of lateral plane and because what area it does have is well centered. In a boat having a centerboard, it must be adjusted for the different points of sailing, as well as the sail's sheets. This, of course, isn't necessary with a fixed keel.

As you will note in Section II, some of the newer class sailboats have a combination centerboard keel. This design style, while offering many of the advantages of both the centerboard and keel-types, is more popular with the cruising sailor than with the racing skipper.

Two types of keels—the full keel (*left*) and the fin type (*right*)

TYPES OF HULLS

The hull shapes commonly used on all class sailboats are classified as flat-, V-, round-, and arc-bottomed. In the following discussion, remember that we are considering the hull shape in section, not as it looks when viewed from one side. When you look at a beached boat from one side, the profile is relatively the same irrespective of whether it is flat-, V-, round- or arc-bottomed.

The flat-bottom hull is possibly the most popular with beginners, but is least attractive from just about every viewpoint. This type of hull is suitable only on protected waters. When it is used in a moderate sea, it

Sailboat hull shapes: *Left to right*—flat-bottom, modified flat-bottom, V-bottom, round-bottom, and arc-bottom

has a tendency to pound or bounce. Actually, its major virtue is ease of construction, particularly if the bottom is planked athwartships rather than fore-and-aft. With the exception of the modified flat-bottom—which can be identified by the abnormal flare of the sides—this type of hull has few good sailing virtues.

The V-bottom hull avoids most of the difficulties of the flat-bottomed hull. It is stable, seaworthy and has good speed. Actually, this type is best for the beginner.

The round-bottomed hull is the strongest and lends itself to a better appearance. Under normal conditions, it doesn't have quite as much stability as a V-bottom hull. It may not be able to carry as much sail without heeling objectionably, but its stability can be increased by proper use of ballast, less sail or by greater skill on the part of the skipper. This type of hull is fast, but there's no proof that it's really faster than the V-bottomed in small-sized sailboats.

The arc-bottom is fairly uncommon, except in the Comet, Lightning and Star classes. In all basic elements it is similar to the V-bottom and its characteristics are also similar. But this type of hull is more expensive to construct.

In addition to the standard type of hulls, there are two other one-design class shapes that should be mentioned. They're the scows and multishapes such as catamarans. Scows are beamy, slightly round bottomed, extremely shallow-draft or "skimming-dish" type sailboats and are of light construction. This type of hull is most suitable for protected waters such as lakes or bays. Catamarans are fully described in Chapter 8.

As is discussed in the rating of sailboats for handicapped racing in Chapter 5, the longer the boat and the more sail area it flies, the faster it goes. But while a small boat may not in actual fact go as fast as a larger craft, it *seems* to go a great deal faster since the occupants are much nearer to the water. In many cases it can go faster for its length than a larger boat. This is because many of the modern craft are able to plane. Planing happens when the bow waves become sufficiently strong to lift the fore part of the boat right out of the water. When this occurs the wetted area of the hull is drastically reduced and with it the friction that holds the boat back. The result is an increase in speed.

Keel boats, which use a fixed ballast, are seldom able to plane because

The Inland Lake Scow Class type of hull (*right*) and the catamaran type hull (*left*)

the weight which gives them stability makes it very difficult to raise them onto their own bow wave. But most centerboards of more than twelve feet are ballasted in a most economical way by human weight which can be lifted from one side of the boat to the other and can even drape itself over the side in order to exert extra leverage to keep the boat level—the best position for planing. Therefore, once the necessary speed is reached, there is a good chance that the boat will climb out of the water, and plane. Of course some classes, such as Flying Dutchmen, 505's, International 14's, Finns, scows, catamarans, etc., plane more easily than others.

HULL CONSTRUCTION MATERIALS

Construction of a class sailboat is an all-important consideration that should make the uninformed buyer proceed with extra caution. Despite the advent of new materials in the boatbuilding business, the majority of boats are still built of wood. Yet, in recent years, there are an increasing number of sailboats made of fiberglass plastics. As you will find in Chapters 6 and 7, some classes specify the construction materials allowed.

Wooden Sailboats. In carvel or wooden-planking construction, the long, wooden planks are screwed, nailed or riveted flush to the hull's frame, with the planks running fore and aft on the sides, and the bottom planking either from side to side across the cruiser or lengthwise, depending on the design. The planks are fitted edge to edge, with the outer edges outgauged (beveled) so that the seams can be calked. (The reason for this outgauge space is to give planking room to expand when the wood swells in the water. Without the spacing, the air-dried but porous wood would warp, buckle and check.) Oakum or cotton is used to calk this seam, with a synthetic-rubber sealer filling the crack to make it watertight.

The advantages of carvel construction are the ready availability and relative cheapness of materials. Commonly used woods are pine, fir and cedar, although some hulls of this type are made of more expensive woods such as teak and mahogany. It is also a fairly inexpensive method of construction. The disadvantage of carvel construction is in its excessive weight, since the wood must be of sufficient thickness to hold the calking materials. In other words, you are paying for thicker wood, not required

Hull construction materials: (*top left*) wood strips—Star class; (*top right*) sheet plywood—Blue Jay class; (*lower left*) molded plywood—Flying Dutchman class; (*lower right*) fiberglass plastic —L-16 class

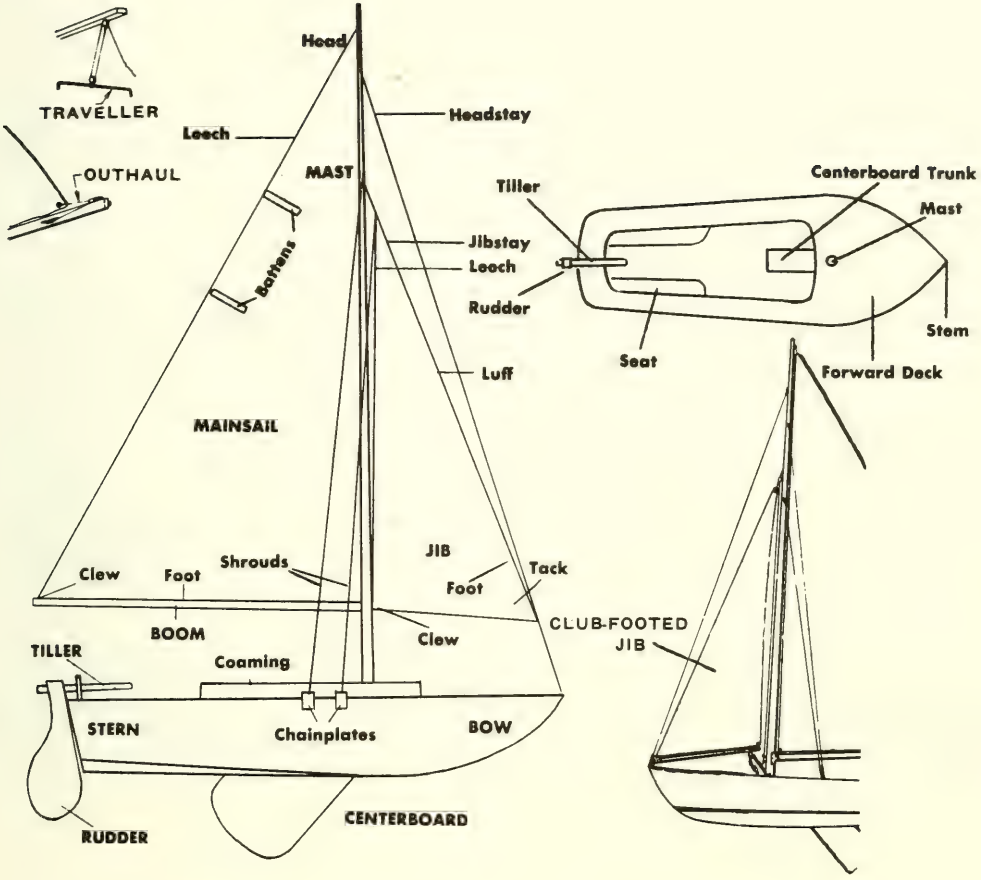
for hull strength but for water integrity. While this type of construction is very durable, it requires recalking and considerable maintenance. Because of these disadvantages, carvel is the least popular for boat construction.

Strip-planking is a type of carvel construction that is commonly used on many boats today. Strip-planking utilizes a method similar to tongue-and-groove matching with a sealer in the seams. Generally speaking, strip-planking produces inexpensive, lightweight, sleek and sturdy hulls, but it requires a good deal of maintenance to keep it in top shape.

Plywood Sailboats. Plywood craft utilize two types of material: the sheet and the molded. In recent years, sheet plywood has largely taken the place of wood-planked hulls in smaller sailboats. This type of construction requires a framework or skeleton similar to that in carvel-planked boats except perhaps for somewhat fewer frames. But because big plywood panels will cover wide areas they shorten construction time, reduce the seam area and the number of fastenings required. Cross-grained bonding of the veneers makes a construction material that is splitproof, virtually punctureproof and dimensionally stable. This means greater strength with less weight at a sizable reduction in cost. Joints are end-butted and glued so that calking troubles are reduced to a minimum. The principal drawback of plywood hulls is the bending limitation of the material, which controls the degree of sharpness to which the planking may be curved.

Sheet-plywood hulls are easy to repair. Simply fit in a new square of plywood of the size needed, backed up by any necessary battens to prevent leaking; or in the case of less severe damage, leave the injured piece in, covering it with a butt block from the inside. Being of a wood product, plywood hulls require scraping and painting.

All modern plywood boats aren't built of sheet plywood. The molded-plywood hull was introduced just before World War II and is still used in the manufacture of smaller boats. In this manufacturing process, the hull is "planked" upside down over a solid wood mold. Each "plank" consists of a single ply, and has been previously cut to shape from a pattern, to fit its exact place on the boat. The "planks" are laid on diagonally, stapled to the mold. Then waterproof glue (resin glue of the hot-press type) is applied. Next comes another layer of piles or "plank," diagonally



Typical sailboat parts of a typical centerboard craft

opposite to the first layer. As many as five or seven layers are put on in this manner, each running more or less crisscross to the layer under and above it. More layers may be used in certain parts of the hull, where more strength is needed. Once all the piles are on and stapled, the hull and mold are placed in an autoclave, where the glue is permanently set under pressure. The resulting hull is a single, strong bottom of molded plywood.

Molded-plywood sailboat hulls, because of their absence of framing and their thin, molded skin, are extremely lightweight, strong and require little upkeep. Also, the molded hull has more "give" to it than the sheet-plywood boat has. This quality of "give" is important. A sailboat will hit

Completed hulls of a Blue Jay (*left*) and El Toro (*right*)

something sometime, and when it does a hull that can bend at point of contact, providing of course it snaps back into position immediately afterward, is preferable to one that can only crack, dent or break. But the compound-curve surfaces of molded sailboats don't lend themselves well to neat repairs. Besides looking untidy, a patch adds weight and is harder to waterproof.

Plastic Boats. The newest boatbuilding materal is fiberglass molded in layers of polyester-plastic resin. The molding process allows complete freedom in the choice of hull shape; a freedom which, as previously noted, is lacking when such as wood and plywood are employed. The plastic reinforced with fiberglass is probably the strongest and most durable of any material used in boat construction. Most plastic hulls are color-

impregnated, which means that they are the same color through the entire thickness of the material. Thus scratches don't require retouching with paint. The material is also immune to teredos (sea worms), termites, fungi and bacteria; it doesn't rot, and water absorption is low.

While maintenance costs are greatly reduced with plastic hulls, it should be pointed out that this material isn't completely indestructible. Because of the great impact strength, the material won't dent or take an out-of-shape set—there are no internal stresses. Fiberglass will often deflect on impact and return to its original shape; if it does puncture or break, it can be repaired easily. Although plastic hulls don't require paint for preservation, they do need it for antifouling when used in salt-water and certain fresh-water areas. Also, the topsides of a fiberglass-plastic boat may need paint for color, because the molded-in color will gradually fade with exposure to sunlight.

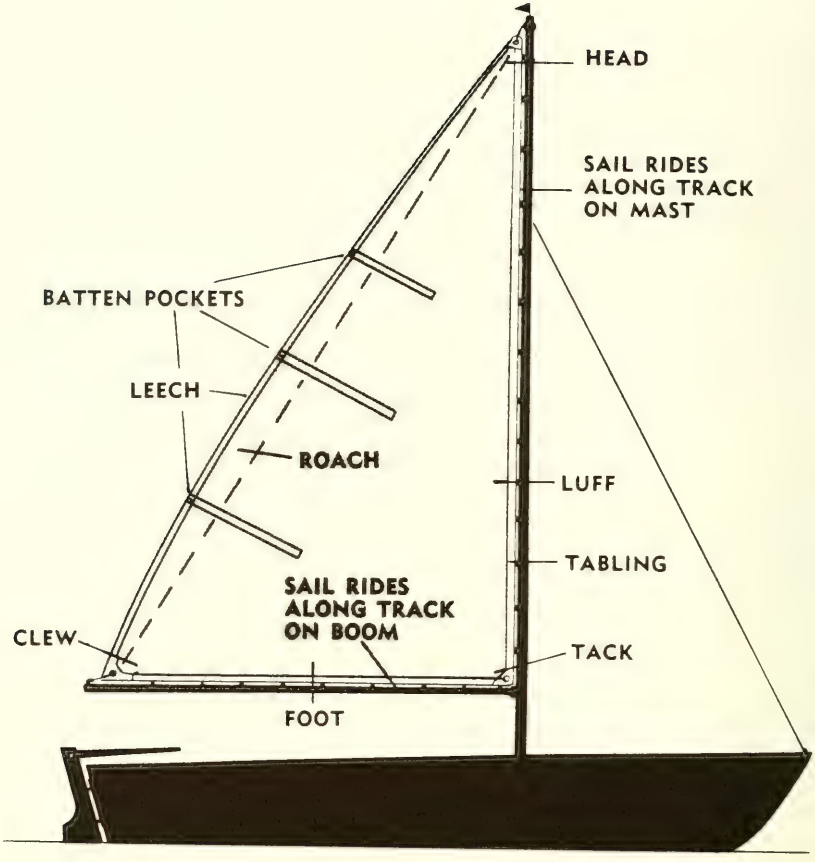
Since fiberglass hulls don't have the buoyancy of wood, flotation gear (a compartment containing buoyant material) is provided in most sailboats presently marketed. At the present time, the normal life of a fiberglass boat is still to be determined. The first hulls were constructed during the latter part of World War II, and as yet no serious deterioration has been detected. Laboratory tests, simulating actual-use conditions, have shown these hulls to last at least thirty years with little or no indication of strength loss or deterioration of materials.

Several classes now allow combining fiberglass with wood construction to obtain the good characteristics of each. In other words, these classes allow a wood-planked or plywood hull to be covered with fiberglass cloth material.

SAILS

The principal suit of sails of one-design sailboats are the mainsail, the jib and the spinnaker. As you remember, a catboat carries but one sail—a mainsail. The sloop has a rig consisting of two sails—mainsail and jib, or mainsail and spinnaker. There are two basic types of mainsails in use today:

1. Jib-headed (also called a Marconi or Bermudian)
2. Gaff-headed



Parts of a jib-headed mainsail

Jib-headed Mainsail. As you can see by the illustration, this type of sail is essentially a triangle. But note that it is long on the luff, relatively short on the foot. In the strictest sense, this sail is not a perfect triangle, for the leech is cut on a long, gentle curve between head and clew to give it extra fullness—and therefore provide extra drive for the boat—when reaching or running. You will see this extra fullness, called the "roach" in the drawing. It's that portion of the sail between the dotted line and the leech. And while we are speaking of the roach we might as well point out the battens. A sail's roach has a tendency to either sag or flap, depending upon the state of the wind; to prevent this, battens are inserted in special pockets along the leech. Battens are narrow, smooth and thin, but

fairly stiff slats of wood, aluminum or plastic. Once inside their pockets, the battens are tied fast to secure them when wind fills the sail.

The jib-headed type of mainsail is one of the most popular in use. It's an efficient sail and easy to handle. Only one halyard, or line, is needed to raise and lower it.

For most small, single-masted sailboats today the jib-headed mainsail is the principal source of power. In certain rigs, such as the catboat and sailing dinghy, it is the only sail. In both the catboat and sailing dinghy, the mast is stepped, or mounted, far forward—much more so than in a sloop. And since both these craft carry just a mainsail, it is usually larger, proportionately, than that carried by a slooptype rig of comparable size. A comparison of the mainsail of the Nipper, a catboat, and that of the Firefly, a sloop, illustrates this. The Nipper's mainsail has an area of 100 square feet. The Firefly mainsail measures 75 square feet; with its jib, which has 25 square feet, the total area of its two sails is equal to that of the mainsail of the Nipper.

Gaff-headed Mainsail. Compare the outline of this sail with that of the jib-headed type. The gaff-headed mainsail is a rectangle—more or less—and as such has four sides and four corners. Luff, foot and leech remain the same as for a jib-headed mainsail; but here you have an additional side, and this is called the "head." The two bottom corners—tack and clew—are the same as for a triangular sail; but the uppermost corner now becomes the peak, while the other upper corner, that adjacent to the mast, is called the "throat." This sail is not as high, proportionately, as the jib-headed mainsail; but its foot, proportionately, is longer.

With its fourth side, or head, the gaff-headed mainsail calls for the use of an additional spar, known as a "gaff" (from which the sail gets its name). The function of the gaff is to aid in raising and lowering the sail, an operation which requires two halyards instead of one, as in the case of the jib-headed mainsail. One of these ropes, the throat halyard, raises the sail's throat; the peak halyard raises its peak. Aloft, the gaff helps hold the sail in position.

Altough gaff-headed mainsails have been around a lot longer than the jib-headed there are nowhere near as many of them in use nowadays on small, single-masted boats. This type of mainsail has certain advantages,

The Beetle Cat class boat is a fine example of a gaff type mainsail

such as being easier to reef (that is, reduce its area) in a strong wind; but it's not as efficient as the jib-headed type; and, since there are two halyards and a spar involved, it's not as easy to handle. A few small sailboats still employ a gaff rig, however; and the most popular are the Beetle Cat and Optimist.

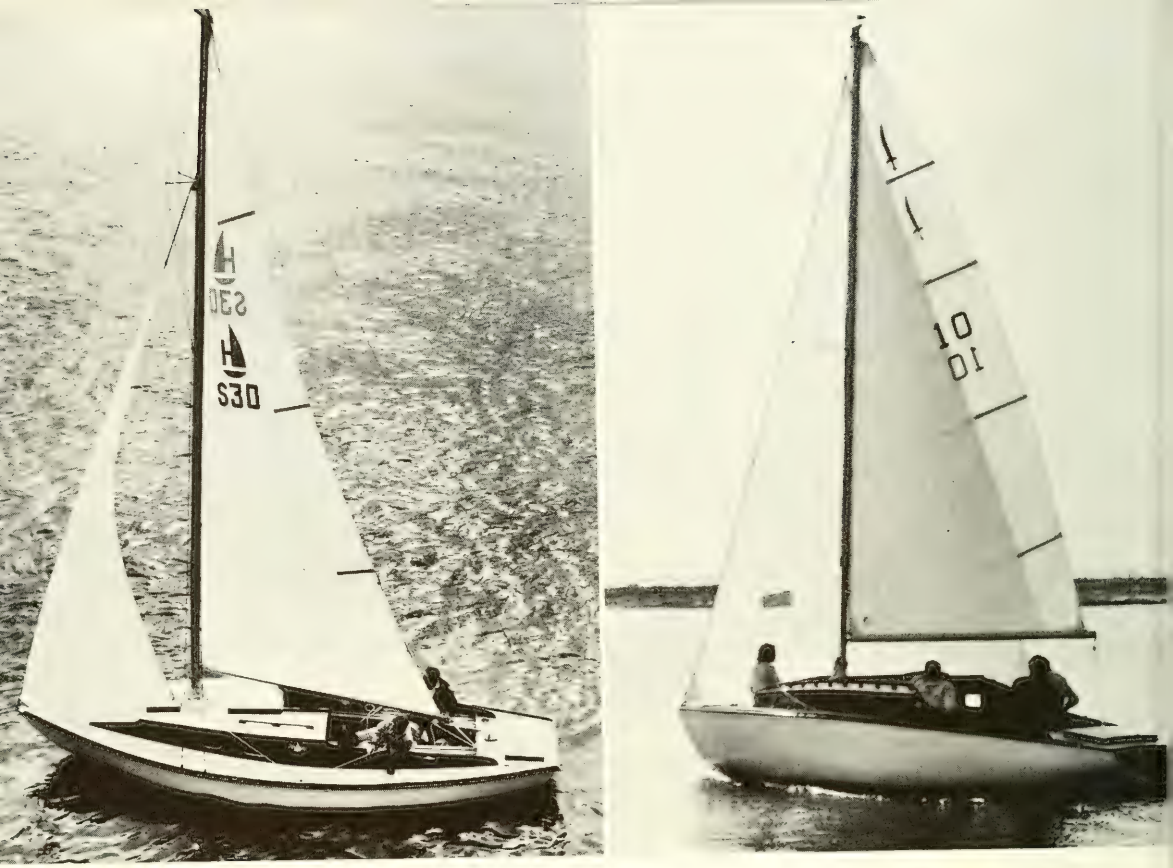
WHAT KIND OF BOAT TO BUY?

The next consideration is the kind of boat you wish. In one-designer you have a choice of two major styles: racer-day sailers and racer-cruisers. The latter is usually called a "cruising sailboat" or a "cruising auxiliary."

Racer-day sailer one-design classes are the most popular of the sailing craft. They are the least expensive but they still provide tremendous fun. Whether you want a pleasant, easy day-sail with your family or a devil-take-the-hindmost race you can get it from this type of boat. If racing is your prime interest, inquire at local yacht clubs and find out what the active one-design classes are. There is no use having a racing boat if there is no competition. For complete information on racer-day sailer or day-sailer racer (since most boats are designed with a prime purpose, either racing or leisurely day-sailing—and a secondary purpose, either racing or day-sailing, you must decide on the primary reason for buying the craft). See Chapter 6.

The cruising auxiliary or cruiser-racer—the boat with sails, engine and cabin—is a great favorite all over the world. The cabin provides shelter for the youngsters on day-sails and longshore accommodations for periods ranging from a weekend in the small sizes to more extended voyages in 30-footers and up. They are stiff, able and seaworthy, and can negotiate a lot of rough water in safety. While many auxiliary and cruising sailboats are considered one-designer and do have associations, quite often—unlike the smaller-class boats—there are not sufficient numbers in a given area for even-up racing. To overcome this, most yacht clubs have a program of handicapped racing for cruising sailboats, so the cruiser or auxiliary isn't excluded from active competition (see Chapter 5 for details). If the skipper and crew are experienced enough, and your boat can pass the race-committee requirements, you can participate in the classic offshore races such as the Bermuda, Nassau, Mackinac, Ensenada and Honolulu events.

Midget Ocean Racers (MORC) are cruisers that are under thirty feet and meet special requirements (see Chapter 7), and the class holds frequent races for those who like to go offshore, but haven't yet struck oil. Full data on racer-cruisers can be found in Chapter 7.



The Holiday 30 is a typical cruising auxiliary (*left*), while the Cutlass class boat (*right*) is a midget ocean racer (MORC) craft

ACQUIRING A CLASS SAILBOAT

Now that you have some idea of what kinds of sailboats there are, the purposes they serve best, their rigs and what goes into their skin and bones—so to speak—let's go into the question of how and where to acquire the one which meets your desires and/or the limitations of your budget.

As was stated in Chapter 1, there are four ways in which you get a boat:

1. Build it from plans and raw materials
2. Build one from a preplanned, precut, material-supplied kit
3. Purchase a secondhand or used boat
4. Buy a new boat ready to sail

Each method listed is progressively more expensive, but as the cost goes up the work required to get the boat afloat decreases. We indicate here a rough guide comparing costs for a 13½-foot, sheet-plywood, centerboard sloop of the Blue Jay class.

Raw materials plus plans—Up to $300
Kits—$399 up
Used—$450 to $950
New—$850 to $1,100

To this one should add that it will take from 50 to 150 hours of labor to build a Blue Jay from scratch, depending on how skillful one is with wood and tools. (Plans cost $15 per set plus a $15 fee for each additional boat from one set of plans.) Kit boats of this class require 25 to 75 hours to assemble.

BUILDING A BOAT FROM SCRATCH AND KIT BOATS

A man who builds his own boat in his spare time, rather than having it built by a boat manufacturer, will save from 33⅓ to 70 per cent of the cost of a class sailboat. Added to money saved is the fun of building your boat and then, on the water, the thrill that comes when you first sail the creation of your own hands and skill. But before rushing headlong into a sailboat-building project, ask yourself if you're a fine enough and patient enough craftsman to execute the intricate work properly. It's far wiser to decide regretfully against building your own boat than to end up with a misshapen, half-finished skeleton in your garage or backyard. It's much more pleasant to recognize your own limitations beforehand than to erect an embarrassing monument to your ineptness that's good for nothing but firewood. Remember that a class boat must be built exactly to plans and specifications. The plans of most small one-design class boats can be obtained from the secretary of the class. For information on how to contact these secretaries see Chapter 6.

Every year, more and more amateur boatbuilders are assembling a wide variety of craft from packaged cruiser kits. These kits, manufactured by some of the finest boatbuilding firms in the country, have been designed under class rules for easy construction by the average person. Full step-by-step instructions have been prepared for each kit, all the difficult work

of laying out and building the frames, keel or centerboard, stem, planking, etc. has been eliminated. The job is simplified so that the boat can be assembled with ordinary hand tools and requires no previous boatbuilding experience or technical knowledge.

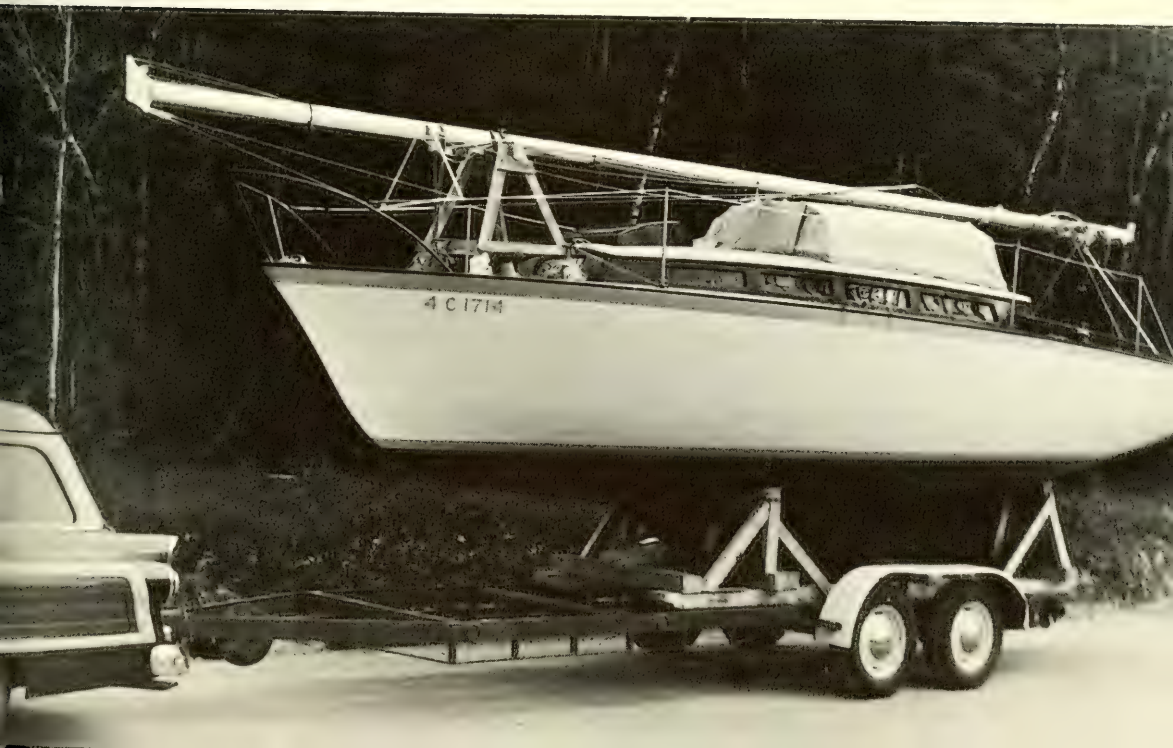
In a book of this size it isn't feasible to go into the details necessary to build a class sailboat from scratch or from a kit. For further information on building a sailboat from scratch, read such books as *Small Boat Construction* by Robert M. Steward, *Amateur Boatbuilding* by William F. Crosby, *Boatbuilding In Your Own Back Yard* by S. S. Rabi, *Boatbuilding* by Howard I. Chapelle and *Modern Boatbuilding* by Edwin Monk. For information on kit-boat-construction techniques, it's suggested that your read your author's book, *How To Assemble Boats From Kits.*

BUYING A USED CLASS BOAT

To purchase a secondhand boat, shop around among boat magazines, yacht brokers, boatyards, association members and the classified pages of metropolitan newspapers and telephone directories. But a used boat must be purchased with care. The old boat at a bargain price may have altogether too many things wrong with it—things which you may never even suspect. For this reason it is wise always, if possible, to examine it both when it's ashore and when it's in the water. Unless you have had a lot of experience with boats, it will pay you to have the boat checked by an expert or to purchase it from a reputable dealer or boat yard. The established marine dealer can't afford to misrepresent, overcharge or fail to make good any shortcomings. He will regard you as a longtime customer and may even give you a break on used equipment in the hope of uptrading you later to a new and bigger one-designer.

Remember also that it's generally best to enter a class that's already operating and well organized within your area. You may find what you think is a great bargain in a used boat of a given class, only to learn that there are no other boats of this class for miles around and that it cannot be readily raced locally. In such a case, its resale value will remain low, and it might be a better investment to buy a more expensive boat in a class popular in your area.

A Mobjack class centerboard boat can easily be trailed by a compact auto (*top*), while a special cradle is required for keel type boats such as the Amphibi-Con (*bottom*)



BUYING A NEW CLASS BOAT

Buying a new one-design class is the easiest and safest way to obtain your craft. You go to a local showroom, pick out the class boat you want, perhaps take a trial sail, and then buy it. If there are no dealers carrying the class boat you want, you may order it by mail directly from the manufacturer and it will be shipped to you by freight. The names and addresses of the manufacturers of the more popular one-designers can be found in Chapters 6 and 7.

So popular is sailing today that most banks and commercial-loan firms will finance your new sailboat (sometimes secondhand ones, too) in much the same way as a new automobile. Financing can be arranged through the dealer, directly with your own bank or other lending institution. A down payment of from 20 to 30 per cent of the purchase price is required by most companies. Interest rates and duration of contracts vary with the amount of money extended. You can also find that loans are obtainable for sailboat repairs, overhauls and insurance, by using your boat as security.

Insurance. It's only common sense to protect your boat investment with insurance. Boat-insurance policies are usually figured for the specific period of time during which the boat will be in use. Most policies also state specific limits within which the boat will be operated. However, it's possible to sail beyond the stated limits by notifying your insurance agent and having your policy properly endorsed. Most boat insurance gives broad protection, including protection against liability for injury to anyone on the owner's boat or on any boat he may collide with; against the cost of medical payments for personal injuries; against damage to the owner's boat; and against liability for the injury of anyone hired to perform work on the boat.

Trailers. The importance of trailers in spreading sailboating's popularity cannot be overemphasized. They not only facilitate intersectional and national regattas, but also permit those who don't belong to a yacht club and have no mooring for their boat to get into the act. The garage becomes the boat's home port—waters anywhere can be its racing course.

While the smaller one-designers present few difficulties, some of the larger ones do. For example, a keeltype boat needs a special trailer to

handle the keel and the boat rides awkwardly high. Spars can be a problem, except in small craft like sailing dinghies whose masts are built in two sections to come apart, fish-pole fashion, and stow inside the boat. To make carrying a full-length spar easy, set up carrying racks on the car's top and run the mast from there to the boat's deck. But make sure that it doesn't stick out much abaft the boat's stern, or ahead of the car's bumper. When purchasing a trailer, be sure that it will handle the weight and dimension of your one-design class boat.

A final bit of advice on selecting a class boat—your first sailing craft should be a small one (preferably a sloop), so that you can afford to buy it and will be able to handle it with a minimum of instruction. Remember that the fun of sailing is in no way measured by the size of the sailboat. Sailing is a fraternity in which the large and small have a common interest . . . sailing.

CHAPTER 3

One-Design Class Associations

As stated in Chapter 1, the more active one-designers have associations whose purpose is to police their class rules and promote well-run, well-organized racing. Some associations are informally run organizations handled completely by a devoted band of class owners, while others are large, formal affairs, administered by a paid executive secretary. The International Star Class Yacht Racing Association is a fine example of the latter since it is one of few one-design classes with permanent offices and a secretarial staff.

The Star has been called the common ancestor of all one-design classes of small racing sailboats. It was the first. Because it is relatively expensive, it has been surpassed in numbers by some of its more prolific offpring, such as Snipes and Lightnings. It was May 30, 1911, that the first race for the class was held on Long Island Sound. The Harlem Yacht Club ran it and there were five starters. The late George Corry, founder and first president of the association, was the winner. Over all these years, the lines of its hull have never been changed, nor has the sail area. The same can't be said of the rig, which evolved from gaff to short Marconi, and then to tall Marconi, and developed along the way the flexible spars that have made and kept it a modern racing machine.

One reason, other than the boat itself, for the lasting success of the Star class is its organization. In 1922, when the International Star Class Yacht Racing Association was founded, no one knew how to run a one-design class because none existed. A few farsighted individuals set up the new organization and nursed it through its formative years, producing eventually the smooth-running worldwide body which its members enjoy today. Many other classes have copied the Star Association's structure and methods, and it's only through the efficient functioning of racing organizations

The Star Class is the oldest one-design class and its races are among the most hotly contested affairs

like the Star class that small-boat yachting can be kept going on a large scale.

Let's look at how the Star class organization operates. The central authority and chief business head is its Executive President, who, assisted by a governing committee, handles the principal business of the class through the central office. Besides the executive officers there is a far-flung network of continental, district and fleet officers, the key members of which are the fleet secretaries who run the local affairs of each fleet. The

primary purpose of this worldwide organization is to provide the best and fairest possible racing on all levels. Each fleet holds local races, among them a series of eliminations, the winner of which is eligible to participate in the World's Championship, an annual affair. Besides this major series there are continental and district championships for which all entries must also qualify through eliminations; and other important international and interfleet events open to all. For the less experienced, there are novice championships, which the experts may not enter. And in addition to all these special events the local weekend or daily races of the home fleets continue throughout the sailing season.

To find out what an association does for you, let's suppose that you have just bought a new Star class boat. Through the former owner, or possibly through another Star sailor, all of whom keep in close touch with all Star activities, the central office in New York will receive word of your purchase. The office will notify the secretary of the Star fleet in whose area you sail, who will then get in touch with you personally and explain the membership idea. As soon as you join the class, by payment of the small annual dues (there is no initiation fee), you will receive a copy of the current yearbook containing the complete rules and regulations of the Star class, as well as *Starlights,* a monthly publication of news and information. You will be invited to attend meetings of the Star owners in your vicinity. You will be eligible to sail in all open races of the class, and to compete for the privilege of sailing in the championship series. Perhaps more important than any of these things will be the discovery that you have become a member of a worldwide club of friendly enthusiasts united by their common interest in Star boat racing.

MEMBERSHIP IN A YACHT CLUB

If you plan to race, membership in a class association is a must. Since many of the classes are affiliated locally with yacht clubs and because many yacht clubs hold regattas, it is usually desirable to become a member of a club.

Yacht clubs vary in size, services, activities and costs. Some are informal groups which pool their resources to buy a patched-up dock and an old shed in which to store gear. They seek new members to reduce individual

Class rules specify the type of sails that can be used. For example, in the Star Class no spinnaker can be employed, thus when going down wind the skipper of the boat above is sailing "wing-on-wing" (the jib is on the opposite side of mast from the mainsail) to obtain greater speed and more effective sail area

The class rules generally specify the construction materials that can be used in their boats, but the associations are constantly testing new materials. For instance, the acceptance and approval by the Comet Class Yacht Racing Association of fiberglass hulls was made after a great number of tests. The X-2 was sailed by members of the Association in several regattas against other boats of similar size (the Comet trails Finn class boat in the above photograph) and competed on completely even terms

costs or to get equipment that all can use. Then there are the huge, non-profit organizations with million-dollar properties that include swimming pools, tennis courts and a Hollywoodian clubhouse.

Somewhere in between is the typical American yacht club. It offers group lessons in sailing, swimming, safety and seamanship to old and young; winter programs on sailing education; dances and dinners; and a summer calendar of races, cruises and social functions. You can judge for yourself how vital to your sailing pleasure such clubs are. But one myth deserves rebuttal: it isn't true that membership in a recognized yacht club automatically gives you the right to use facilities of any other club when you're cruising. Some clubs have exchange-visiting privileges, and very few clubs would deny you a vacant mooring in bad weather.

Many yacht clubs have long waiting lists of people who want to join. The number of new clubs has not kept up with the increased number of boats in use, which accounts for the long, prospective-membership lists.

The greatly increasing interest in sailing, plus the lack of yacht-club facilities, has led many sailors to form their own organizations, where sailing is the prime activity. In many areas local communities have organized sailing programs and clubs. If you like to head up committees you might gather a group of friends and neighbors and start your own sailing club. Often such a group will purchase one or more sailboats and thereby share the initial cost and maintenance. (Fleet purchases earn special discounts.) In one small Connecticut community three young men decided to start a club. A small ad in the local paper told about the boat they wanted to buy and the club they wanted to organize. In less than a year their new club numbered thirty-five members.

RACING ASSOCIATIONS

In addition to class associations and yacht clubs there are racing associations which are made up of class association and/or yacht-club members. The purpose of a racing association generally is to foster and develop the interests of one-design racing craft through the supervision of boat regattas for recognized one-design classes. A good example of such an organization is the Small Boat Racing Association of Northern California. To give you some idea of the operation of this organization, here are its rules.

ARTICLES OF ASSOCIATION
SMALL BOAT RACING ASSOCIATION
OF NORTHERN CALIFORNIA

Article I—Name—The name of this organization shall be the SMALL BOAT RACING ASSOCIATION of Northern California.

Article II—Object—The object of the association shall be to encourage the building and racing of small, one-design yachts, and:

1. Arrange each year a schedule of championship races for approved classes.
2. Provide a committee to hear and determine appeals from the rulings of the race committees of various regattas.
3. Award season's championships and the Association's trophy therefore, in each approved class, under the rules of the Yacht Racing Association of San Francisco Bay, or such other rules as may be adopted.

Article III—Membership—The membership of the Association shall be open to yacht clubs or sailing clubs in Northern California upon application to this Association and election by the delegates.

Article IV—Representation of Member Clubs—Representation shall be by delegates as follows:

1. Each member club shall be entitled to one delegate.
2. Each member club shall be entitled to additional delegates according to the number of boats of approved classes, holding certificates of good standing in their class organization, enrolled in the member club, fifteen days prior to the annual meeting of the Association, as follows:

Three Boats	1 delegate
Seven Boats	2 delegates
Fifteen Boats	3 delegates
Twenty-five or over	4 delegates

Article V—Officers—The officers of the Association shall be elected annually by the delegates from their own number and shall consist of a Chairman, a Vice-Chairman, a Secretary and a Treasurer.

Article VI—Registrar and Recorder—The Chairman with the advice and consent of the delegates may appoint a Registrar and a Recorder and fix their reimbursement.

Article VII—Committees—Committees shall be appointed by the chairman unless the delegates vote to have a committee elected.

Article VIII—Meetings—Annual Meeting to be held in January, date to be set by S. B. R. A. officers at a time considered most convenient for majority of delegates. Other meetings shall be called by the Chairman or upon a written petition of five delegates. Delegates shall be individually notified at least one week before any meeting. Notices of meetings shall include a list of the subjects to be discussed, but business shall not necessarily be limited to those subjects. Delegates representing four of the member clubs shall constitute a quorum. Voting by proxy shall be allowed, but no delegate shall vote more than one proxy, and that only of a delegate from the same club; proxies shall be in writing, signed, and filed with the Secretary at the beginning of the meeting. Meetings shall be conducted according to Roberts Rules of Order.

Article IX—Dues—Annual dues shall be due and payable on March 15, on the following basis: Ten dollars for each club, plus an additional Regatta Fee for those clubs holding a Small Boat Racing Association sanctioned regatta. The amount of the additional Regatta Fee will be dictated by the current expenses of the Small Boat Racing Association and the vote of the delegates.

Article X—Approved Classes—"Approved Classes" when used in these articles shall be defined as: Any class of small, one-design racing yachts whose number enrolled in member clubs, and in good standing in their class organizations shall total five or more. The present approved classes shall be National, Snipe, Mercury, Clipper, El Toro, International 110, Shamrock, Zephyr, Melody, Coast 13, Blue Jay, Thistle, Penguin, Lido 14 and Finn. A class not entering at least five boats in not less than six of the scheduled championship races in any season, shall not continue as an approved class and no championship shall be awarded in that class for the season.

Article XI—Racing Rules—The racing rules of this Association shall be the rules of the North American Yachting Racing Union or such other rules or modifications as may be adopted by this Association.

Article XII—Amendments—These articles may be amended by a two-thirds majority of votes cast by delegates. Delegates may vote upon a proposed amendment either in meeting or by mail. Copies of proposed amendments must be mailed to all delegates not less than one week prior to the meeting which is to vote thereon. A vote mailed in must reach the Secretary not later than the day before said meeting.

UNITED STATES INTERNATIONAL SAILING ASSOCIATION

Another sailing organization you may wish to join is the United States International Sailing Association. In 1960 the U.S.I.S.A. paid all expenses of the United States Olympic sailing team. It plans to in the future too, and also plans to meet expenses of certain international competitions to our *best* sailors, not just to the more wealthy. The necessary funds come solely from membership dues and contributions. Dues range from $10 up depending on category and they are tax deductible. For further information, write U.S.I.S.A., 37 West 44th Street, New York 36, New York.

CHAPTER 4

One-Design Class Racing

After you have purchased a one-design sailboat, practiced sailing it for a while, and then joined the class association, the chances are that you'll wish to do a little racing. While you may get your boat for the fun of sailing, for the quiet relaxation and for the satisfaction of going places propelled by the wind alone, you—often to your own surprise—find yourself drawn into racing. The major types of racing are:

Class Boat Racing—between boats of the same class, racing on even terms.

Handicap Racing—between boats of different types handicapped by some type of time-allowance system to make all boats as evenly matched as possible. With the resulting handicap rating, sloops, cutters, yawls, ketches and schooners would be able to compete evenly against each other regardless of size (see Chapter 5 for further details).

CLASS BOAT RACING

In this chapter we'll concern ourselves with day-racing of one-design class racing. But while racing in one-design classes is one of the most highly competitive sports, it is unlike many others. It requires more than good equipment to sail the winner across the finish line.

As previously stated, this is *not* a "how-to" book. Several good books on the subject of class-boat racing are listed in the Bibliography. But success in racing a one-designer will depend mainly on your ability to master the following four points:

1. Keep your craft and its gear in top condition
2. Know the racing rules and how to employ them for your benefit
3. Know the racing course and how to use local tides, currents, wind conditions, etc. to your advantage
4. Know how to get the most from your boat

RACING COURSE FOR ONE-DESIGN BOATS

While a few sailboat races for one-designers are run from one geographic point to another, the majority of regattas are held around triangular courses. Such a course is a good test of skill since it requires sailing to the windward, reaching and sailing before the wind. Boats start the race by crossing the starting line between a white flag on the committee boat or station and the starting mark, and they finish by crossing a line formed by a white flag on the committee boat or station and the starting mark. Generally the race course is so arranged that the first leg requires a beat to windward. This spreads the boats out a little and minimizes, to some degree, traffic jams at the first mark. Some courses are twice around the triangle.

One of the most popular courses, especially for class national championship, is the "modified Gold Cup" course which consists of five legs, with the starting and finishing at the same mark. The first three legs are generally around a triangle, starting with a windward leg followed by two reaching legs; the fourth leg is usually a repetition of the first leg to windward; while the fifth leg is a return downwind to the finish line at the starting mark. In the case of the Thistle Class National Championship, their rules state that a modified Gold Cup course should be as follows: The triangle laid out for this course should be an equilateral one not less than 12 nautical miles on a side, making a total course length of not less than 6, or more than 7½, nautical miles. This course cannot be changed under any conditions, and cannot be shortened after the start of a race.

In the America's Cup Races, two courses are usually sailed: the windward-leeward and triangular, on alternate days. The windward-leeward course is twice around two buoys placed 6 miles apart, for a total of 24 nautical miles. If wind conditions permit, the first leg of the course will be to windward. A triangular course, which tests a boat on all points, consists of a beat to windward, a reach with wind abeam and a run before the wind. The legs in the America's Cup Races are 8 nautical miles each for a total of 24. If the wind permits, the first will be to windward.

In the 1960 Olympic Games, courses were employed with eight buoys

spaced evenly around a circle, and numbered clockwise in succession with the northeast buoy being No. 1, the easterly one being No. 2, etc. The windward legs of the course are always full diameters, i.e., from No. 4 to No. 8 in a northerly wind; from No. 5 to No. 1 in a northeasterly wind, etc. The start is always a windward start, at the beginning of such a leg, and the first round constitutes a triangular course; i.e., No. 4, No. 8, No. 6 and back to No. 4. The final leg of the course is a third windward leg with the finish at its completion; i.e., No. 4, No. 8 with finish at No. 8. Thus, barring major wind shifts, the racing will constitute 61 per cent windward sailing, 24 per cent broad reaching and 15 per cent directly downwind. It is unfortunate that the reaches are both rather broad instead of one being fairly close—especially in very light air conditions, when they may prove as tedious as the leg of the course that is directly downwind.

Some races, due to geographic reasons, can't be sailed over a triangle. Such courses may be modified triangular or a variation of the windward-leeward courses. But should you ever have anything to do with arrangement of a course, remember that the most successful sailboat races are sailed for the benefit of the skippers. It's the one sport in which the spectator isn't considered and a great many of the biggest regattas are held far away from shore solely with the idea of making the race a fair test of skill and not a matter of knowing all the little slants and vagaries of winds and currents along the shore. Sailboat races are to be won by fair sailing and superior seamanship, and the idea is to give the visitors every possible chance at fair sailing.

RACING RULES

Racing rules were invented to keep boats out of trouble with their competitors. Therefore, make certain that you know your class and right-of-way racing rules thoroughly so that you won't be disqualified before you even start, or lose valuable ground having to ponder these rules during the race. A complete set of the Racing Rules of the International Yacht Racing Union may be obtained for a small fee from the North American Yacht Racing Union, 37 West 44th Street, New York 36, New York. Class rules can be obtained from the secretary of the class. By

following all the rules, you'll stay out of serious trouble. Briefly stated and with exceptions that are covered in the complete racing rules of the N.A.Y.R.U., the following basic rules of right of way may be summarized in this manner:

1. Overtaking boat must keep clear
2. A starboard tack has right of way over port tack
3. On the same tack, the windward boat must keep clear
4. Boats tacking or jibing must keep clear of those on a tack
5. Rounding a mark, the outside boat must give room to boats that have an overlap inside it
6. A boat must give another room to clear obstructions

The start is at a specific time. The race committee starts the boats by visual signals, but calls attention to these by audible signals (horns, whistles or guns). The starting signals (display of warning signal, white shape; preparatory signal, starting signal for the first class to start, red shape) are hoisted usually at five-minute intervals. Each signal is lowered thirty seconds before the hoisting of the next. In starting boats by classes, the start signal for each class is the preparatory signal for the next class. The hoisting of a starting signal, even if improperly timed, controls the start.

The race committee on the committee boat judges the finish, particularly when boats are fairly close at the end of the race. The committee must also act as judges for any protests which may be filed. The only requirements for finishing are that the boat must cross and clear the finish line, and that the first boat must finish within a prescribed time limit, usually designed to get boats home before sundown.

SCORING ONE-DESIGN CLASS RACES

There are several systems of scoring in use today. If every race were a complete contest in itself, of course, there would be no need for complicated scoring systems (and some are really complicated). But because every race isn't important enough to carry a prize, a system of scoring must be devised by which the award goes to the boat with the best performance over a series of races running perhaps over a weekend, or a

week or even over the entire season. The placings are determined according to the total number of points earned by each boat during a series of races. Let's take a look at some of the more common ones.

Low-Point System. Boats get the number of points in each race corresponding to their finishing position. For example, a boat will receive 1 point for first place, 2 points for second place, 3 points for third place, etc. All boats not finishing a race (D.N.F.) receive points equalling the number of boats starting the race plus 1; if disqualified (D.S.Q.) plus 2. The series' winner is the boat with the lowest number of points.

The start of a Narrasketuck one-design class race

Rebel Class boats sailing toward the finish line of a one-design class race

High-Point System. Points for a race shall be awarded on the basis of 1 point for finishing and 1 point for each yacht defeated; also, ¼ point additional shall be given for first place. The basis for point award shall be the total number of registered entries. The entry with the greatest total points shall be the winner of the series. In the case of a dead heat, the total points for the positions involved shall be divided equally among the tied boats, even though this results in fractions. A boat that does not finish a race, or a contestant who is disqualified, shall receive no points whatsoever for the race.

Olympic Scoring System. Ths system underscores stellar performances rather than consistent placing. The bonuses in points for placing at or near the top are a constant incentive to place well rather than be satisfied with a modest but consistent performance. Furthermore, the added advantage of being scored only on the best 6 of one's 7 races makes for a more lively contest for the top placers. Only after suffering a very poor score in one race will a promising competitor begin to become slightly

conservative, and even then he must place near the top of the fleet in order to accumulate a substantial score.

An indication of how the scoring works can be gained from the following two examples:

I. *In a 40-boat fleet*

1703—First
1402—Second
1226—Third
1101—Fourth
1004—Fifth
703—Tenth
527—Fifteenth
402—Twentieth
305—Twenty-Fifth
226—Thirtieth
153—Thirty-Fifth
101—Fortieth

II. *In a 20-boat fleet*

1402—First
1101—Second
925—Third
800—Fourth
703—Fifth
402—Tenth
226—Fifteenth
101—Twentieth

The scoring formula is: 101 plus 1,000 log "A" minus 1,000 log "N"; where "A" equals the total number of yachts starting in the race, and "N" equals the yacht's finishing position. Any yacht disqualified shall receive no points. Yachts which retire and do not finish will each receive the points for the last boat in the class, calculated on the basis of the number of starters. In the event of a tie of points between two or more yachts, the number of times each tied yacht has beaten the other tied yacht shall decide. If still equal, the highest number of the highest placing shall prevail. Should neither of these methods resolve the tie, then the tied yachts shall sail a deciding race.

Snipe-Scoring System. Some one-design class associations, such as the International Snipe Class Racing Association, have their own scoring methods. In the Snipe system—which allows competiton between owners of different clubs even though these clubs don't actually race against one another—points are awarded to the boats according to the order in which they finish, irrespective of the number of boats in the race. But, for a race to count in the scoring, there must be at least 5 boats taking part and the course must be at least 2½ miles long. In order to encourage skippers to race as often as possible, a bonus of 10 points per race up to

THE Larchmont Yacht Club

LARCHMONT • NEW YORK

SIXTY-THIRD ANNUAL RACE WEEK

AFTERNOON RACES

July 15 through July 22, 1961

Wednesday, July 19 is Junior Day

ENTRIES Crossing the starting line with Racing Number displayed will be regarded as an entry provided yacht and owner are registered with the Yacht Racing Association of Long Island Sound, otherwise a written entry is required. All Handicap Class Yachts must file Entry Blank obtained from Larchmont Yacht Club Office.

RULES The current Racing Rules of the Y.R.A.L.I.S. will govern except as otherwise specified in this circular. All yachts must conform to the rules of their respective classes. Each yacht must display its own racing number affixed to the mainsail in the approved manner.

PRIZES A first prize shall be awarded in those Classes with an average of 4 or more Starters, a second prize in Classes with an average of 6 or more, and a third prize in Classes with an average of 9 or more Starters. Fourth prize with an average of 15 or more Starters. A Race Week memento will be awarded to each YRA member crew of prize winning yachts and to all participating skippers on the evening of the 22nd.

SCORING Scoring: Each yacht will receive one point for first place, two points for second place, etc. All yachts not finishing a race shall receive points equalling the number of yachts starting the race plus 1, if disqualified plus 2. A yacht need not sail in all races to qualify for a prize. However, failure to sail a race will give a non-starting yacht two points more than the number of yachts starting in the race omitted. If two or more yachts in a class are tied at the end of the series, the yacht which has finished ahead of the other or others the greater number of times shall be declared the winner. If the tie still exists, the yacht with the greatest number of 1st places, 2nd places, 3rd places and so on down until the tie is broken, shall be declared the winner. The 1st, 2nd and last day of Race Week are also official Y.R.A. races.

CLUB PRIVILEGES The privileges of the Club for Race Week will be extended to owners and Corinthian crews upon application for a guest card.

REGATTA COMMITTEE

JAN C. BRASSEM, Chairman
DONALD B. KING, Vice Chairman
FRED L. BRADFUTE, Secretary
ALBERT H. SWANKE, Asst. Secretary

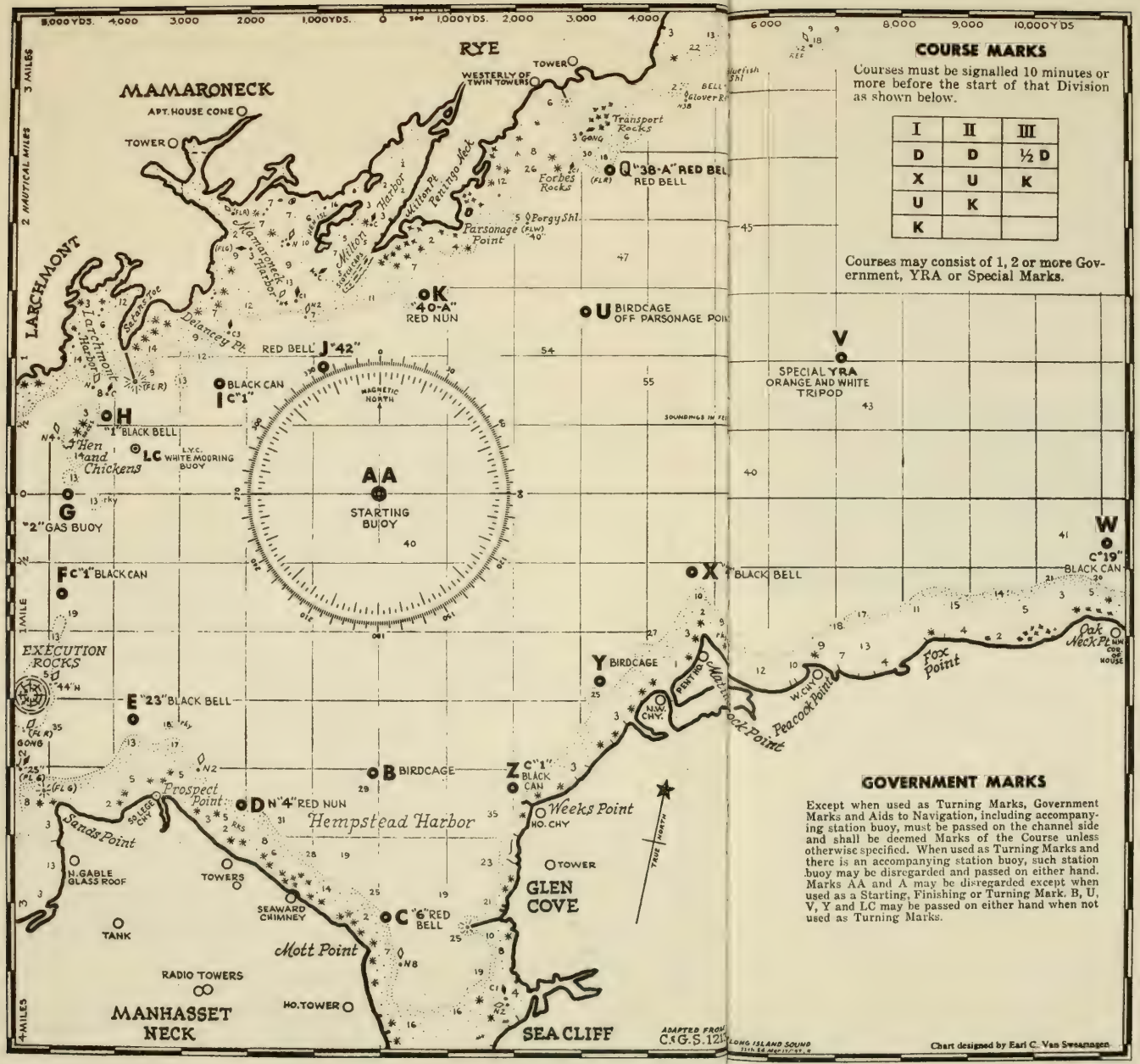
WILLARD BROWN
RALPH H. FISHER
TOM L. FITZSIMONS
COL. CHARLES H. GREENALL
DANNER HUNT
RODNEY M. OLLINGER
ERWIN D. TUTHILL
MALCOLM H. TUTTLE
MILTON L. VAN SLYCK
JOSEPH P. WIEGERS

PETER C. KERBY, Chairman Regatta Patrol

The RACING RULES of the INTERNATIONAL YACHT RACING UNION as adopted by the NORTH AMERICAN YACHT RACING UNION, 1961, shall apply except as modified herein. In addition all Classes must conform to their Class Rules as filed with Yacht Racing Association of Long Island Sound.

MODIFICATIONS

II—4—1 "AP"—Postponement Signal, Time of Postponement, changed to "5 minute intervals."
II—4—1 "S"—Shorten Course Signal changed to read "may be used only at last Mark of Course originally signalled."
III—25—1 & 2—Sail Numbers, Letters and Emblems. "Class Rules, as filed with the YRA of LIS shall take precedence."
IV—68—3—Protests. Modified as below.
VI—77—1—For Appeals to YRA "with its written consent" eliminated.



COURSE MARKS

Courses must be signalled 10 minutes or more before the start of that Division as shown below.

I	II	III
D	D	½ D
X	U	K
U	K	
K		

Courses may consist of 1, 2 or more Government, YRA or Special Marks.

GOVERNMENT MARKS

Except when used as Turning Marks, Government Marks and Aids to Navigation, including accompanying station buoy, must be passed on the channel side and shall be deemed Marks of the Course unless otherwise specified. When used as Turning Marks and there is an accompanying station buoy, such station buoy may be disregarded and passed on either hand. Marks AA and A may be disregarded except when used as a Starting, Finishing or Turning Mark. B, U, V, Y and LC may be passed on either hand when not used as Turning Marks.

LIST OF MARKS

- **AA** YRA Orange and White Tripod Starting Buoy, 2060 yards from Scotch Caps Red Bell "42" on a line to Weeks Point Black Can, C "1"
- **A** Marker end of Starting and Finishing Line—Orange-Red Fluorescent Pennant and Code Flag "A"
- **B** YRA Spindle Hempstead Birdcage (296° Mag. from HO CHY, Weeks Point, 2600 yds.)
- **C** Red Bell "6" Mott Point
- **D** Red Nun N "4" Prospect Point
- **E** Black Bell "23" Prospect Point
- **F** Black Can C "1" North of Execution Shoal
- **G** Red Gas Buoy "2" (fl R 4 Sec) S.W. end Hen & Chickens
- **H** Black Bell "1" (fl 2½ Sec) Easterly end Hen & Chickens
- **I** Black Can C "1" Delancey Point
- **J** Red Bell "42" (fl 2½ Sec) Scotch Caps
- **K** Red Nun "40-A"
- **Q** Red Bell "38-A" (fl R 2½ Sec) off Playland
- **U** YRA Spindle Birdcage off Parsonage Point (168° Mag. from Westerly of Twin Towers, Rye, 3500 yards)
- **V** Special YRA Orange and White Tripod on a line from Starting Mark "AA" and halfway to Whistle Buoy "32-A" (131° Mag. from Westerly of Twin Towers, Rye, 6200 yards)
- **W** Black Can C "19" Oak Neck Point
- **X** Black Bell "21" (fl G 2½ Sec) Matinicock Point
- **Y** YRA Spindle Birdcage on a line halfway between "X" and "Z"
- **Z** Black Can C "1" Weeks Point
- **LC** Larchmont Yacht Club White Mooring Buoy (180° Mag. from Breakwater Light, 850 yds.)

If shorter legs are indicated, the Committee Boat or Launch may place special turning markers on a line between Start and any one of the above Government or YRA marks. Special turning markers will be double-flagged with an orange-red fluorescent pennant and the code flag of the letter assigned to that mark. The Committee Boat will signal such marks, i.e.:

½ D—means special turning mark (double-flagged with orange-red fluorescent flag and code flag "D" will be ½ the distance to and on a line with "D", Prospect Point Red Nun N "4."

or

⅓ D—means mark will be at ⅓ the distance, etc.

or

⅔ D—means mark will be at ⅔ the distance, etc.

Etc.

All marks signalled must be left on the same hand as starting Marker.

The race circular from the famous Larchmont Yacht Club's Annual Race Week

15 races is added to the average score. But to equalize things between clubs with long racing seasons and those with a short one, the scores are averaged. In the following table the left-hand column in each case represents the finish place of the boat and the right-hand column the points awarded. A boat that does not finish, or is disqualified for a rule infraction, is given the points for last place. Thus, if there are 7 boats in a race and 1 fails to finish, it will receive the points for seventh place. In a race for 7 boats, if 3 fail to finish or are disqualified, all 3 get seventh-place points. Boats that fail to finish, or are disqualified, will receive the 10-point bonus.

1.	1,600	10.	961	18.	529	27.	196	35.	36
2.	1,527	11.	900	19.	484	28.	169	36.	25
3.	1,444	12.	841	20.	441	29.	144	37.	16
4.	1,369	13.	784	21.	400	30.	121	38.	9
5.	1,296	14.	729	22.	361	31.	100	39.	4
6.	1,225	15.	676	23.	324	32.	81	40.	1
7.	1,156	16.	625	24.	289	33.	64		
8.	1,089	17.	576	25.	256	34.	49		
9.	1,024			26.	225				

The following is how the point is determined:

Boat No. 000

May 30	Fourth place	1,369	10 bonus
June 4	Second place	1,521	10 bonus
June 18	Third place	1,444	10 bonus
July 2	First place	1,600	10 bonus
July 4	First place	1,600	10 bonus
July 16	Fourth place	1,369	10 bonus
July 22	First place	1,600	10 bonus
		10,503 (total points)	70 (total bonus)

Divided by 7 (number of races) equals average *1,500.4*

Total average points 1,570.4

Let's assume that the skipper and his boat race the rest of the season and take part in 20 events with a total point count of 28,549. This sum is then divided by 20 to give a season's average of 1,422.4 points. To find the season's total average points add 150 (10 bonus points for each race up to 15) and we have 1,572.4 points.

There are several other scoring systems plus many variations employed by different yacht clubs and class associations. Each system is designed to reward slightly different types of excellence. One may place greater emphasis on consistency, another may permit dropping out the poorest race of a given series, or a D.N.F. or D.S.Q. may be penalized more in one system than another. Of course, when racing, you must follow the scoring system designated by the sponsor or the one-design class in which you sail.

DIVISION AND STARTING SCHEDULE

Eastern Daylight Time

AFTERNOON STARTS

12 METERS will race as a class from a different starting line on a special course, at times to be agreed upon.

	Start	Class	Signals
	1245	Warning	1 White
	1250	Preparatory	1 Blue
DIVISION I	1255	Blank	1 Red
	1300	Handicap Div. I L.Y.C. Cruising*	2 White
		Visitor Cruising*	
DIVISION II	1305	International	2 Blue
	1310	Star	2 Red
	1315	Raven	1 White
	1320	S Class	1 Blue
	1325	210	1 Red
	1330	Atlantic	2 White
DIVISION III	1335	Multihull	2 Blue
	1340	Finns — Flying Dutchmen — 505	2 Red
DIVISION IV	1345	Highlander	1 White
	1350	Thistle	1 Blue
	1355	110	1 Red
DIVISION V	1400	Odd No. Lightning	2 White
	1405	Even No. Lightning	2 Blue
	1410	Triton	2 Red
	1415	% and Time Allowance Class	1 White
DIVISION VI	1420	Converted 6 Metre	1 Blue
	1425	Rhodes 19	1 Red
	1430	L-16	2 White
	1435	Rhodes 18	2 Blue
	1440	Bullseye and all other Classes	2 Red

START

July 15-16-22, start at AA.

July 17-18-20-21, start between white flag on LYC Committee Boat (flying Race Committee Flag) and marker at other end of line, near LYC mooring buoy.

FINISH

Same as start, or at last mark signalled if course is shortened. Committee Boat or Launch will display three blue cylinders.

TIME LIMIT

1730 — Finish of one yacht in a class within the time limit constitutes a race.
1800 — if postponement.

NO RACE

If no class has started by 1530 all races for that day are cancelled automatically.

*Saturday, 15 July; Sunday, 16 July; Saturday, 22 July only.

Starters in the Morning Races are not eligible for a Start in the Afternoon Races except Finns and Bullseyes. After the first Preparatory Signal, all classes must keep clear of the Starting Area until their Preparatory Signal has been given. After the first warning from the Race Committee the penalty will be disqualification.

SPECIAL YRA SIGNALS

3 RED CYLINDERS—Committee Boat on station.

WHITE SPINNAKER TRIANGLE—No Spinnakers when flown betwen Preparatory and Starting guns for the Class involved.

CODE FLAG "O"—Waved on a mobile staff indicates change of angle and/or length of Starting or Finishing Line.

WHITE CYLINDER with RED BAND—Recall Signal accompanied by one blast of horn for each yacht involved. Lowered only when all yachts recalled have properly re-crossed Starting line.

3 BLUE CYLINDERS—Committee Boat "on Station" at Finish line.

STANDARD NAYRU SIGNALS

Code Flag "AP"—Answering Pennant (and 2 guns) Postponement. All races **not started** are postponed, for intervals of five minutes. The next signals after a Postponement shall be the Warning, Preparatory and Start for the Class that would have started if there had been no Postponement.

Code Flag "L"—Come within hail Signal. Course being changed. Signal will be displayed until that Division is Started. A Course change cannot be made after a Warning Signal.

Code Flag "M"—Mark Signal. When displayed on temporary Mark, dory, launch, etc., means round this instead of Mark originally signalled which it replaces.

Code Flag "N"—"Cancellation Signal" (and 2 guns); All races not Started are cancelled. (With 3 guns); all races including those in progress are cancelled.

Code Flag "S"—"Shortened Course Signal" (and 2 guns) may be used only at last Mark of Course originally signalled.

"First Repeater"—General Recall Signal (and 2 guns) entire Class is recalled for a fresh Start.

PROTEST

PROTEST—A protesting Yacht must display Code Flag "B" in her Starboard Rigging promptly after a Rule infringement occurs and keep it displayed until the Finish Line is crossed and attention of the Race Committee indicated. Protests shall be made in writing and handed to Committee at Clubhouse immediately after race. It shall be the responsibility of protesting skipper to notify and receive acknowledgment from protested opponent to attend hearing at 1930 on day of foul except on last day of Race Week when protests will be heard immediately after Committee returns to Committee Room. There shall be no appeals from decisions of Protest Committee regarding protests insofar as such decisions affect awarding of points for Race Week Series Prizes.

AFTER STARTING—The Starting Line must not be recrossed until it becomes the Finish Line.

SAILING INSTRUCTIONS

The sailing instructions contained in the race circular and the advertisement of the race, if one is made, may contain valuable information that may be profitable to study, especially when the race is being sailed at unfamiliar locations. These sailing instructions, prepared in writing by the race committee, include the following matters: the starting signals and their schedule times; starting line; finish line; the order in which the turning marks of each course are to be passed and the side on which each mark is to be passed, with a description of each mark. The instructions also cover such of the following matters as may be appropriate: the date and place of the races; the classes to race; possible courses; eligibility and entry requirements; measurement certificates; the signals used to designate courses other than the only prescribed or regular course; any government buoys or other objects required to be passed on a specified side; whether buoys will bound the starting area (if so they don't rank as marks); special method of recall; time allowance; special time limit; prizes; the scoring system; special time limit for protests; and any special provisions and signals. These written instructions make it possible for you to form a mental picture of the race course and to lay racing plans in advance. To give you some practice on this important step in racing, the race circular of famous Larchmont Yacht Club's Annual Race Week is reproduced verbatim.

FROSTBITING RACING

Sailboat racing can be a year-round sport, even in northern states. The hardy sailors who race in the winter are known as "frostbiters." Starting as a lark in the early 30's, frostbiting is now a serious and popular sport. Many of the leading sailors of larger boats in the summer sail little dinghies in the winter with the results that top-flight competition is the rule.

Long Island Sound, Cape Cod, Chicago and Puget Sound are just a few of the frostbite centers, and it takes a freezeover of the harbors or a blizzard to stop the sport. The location of the fleet determines the amount of action. For example, the established frostbiting fleets in the New York

area operate only once a week, usually on Sunday afternoons, and in the period of three hours the race committee will jam in a half dozen or more races around short courses.

The seasons can be long ones, beginning in October and carrying into April. With 24 weekend dates and an average of 6 races an afternoon, this means a skipper can enrich his experience 144 times a winter. Unless he is an avid traveler, he will never get to that many starting lines in summer.

Most frostbiting is done in little one-design dinghies such as Penguins, Interclubs, Dyer Dinks, Turnabouts, El Toros, Tech Dinghies, Dyer Dhows and Sabots. They can easily be "dry sailed," meaning hauled out of the water on trailers or carried on top of an auto or in the back of a station wagon, to and from the races. This solves the problem of winter dockage and permits the boat to escape the ravages of ice. Also their size and simplicity (cat rigged) make them inexpensive.

The frostbiting racing course is generally no longer than three fourths of a mile, averaging half a mile, windward-leeward-windward, or triangular in shape. The start is signaled by a series of blasts from a horn, whistle or cannon. (One club uses a prerecorded phonograph record that calls out the number of seconds to go before each signal.) Because of wholesale barging, or premature starting, the racing committee is generally empowered to call the whole thing off and demand a new start. No regattas should be held in winds blowing over 15 knots. In conditions of 10 to 15 knots, courses should be set which require no jibing. Most dinghies will capsize long before they will jibe in a good breeze. The regatta should end at the discretion of the race committee or most certainly one to two hours before sunset.

Certain ground rules and precautions are generally observed in order to promote safety. It's bitter cold, of course, when a boat capsizes—as they frequently do—but a frostbiting rule requires any boat in the vicinity of a capsized one to go to the latter's aid immediately. It's the universal rule of never sailing without a "crash boat" to fish out those who do go over that has kept the frostbiters' safety record intact—there has never been a fatality in over thirty years of this type of racing.

One stays amazingly warm because the physical exertion in sailing a small boat is sufficient to keep skipper and crew warm, except—of course—

on the coldest days. Sensible clothing helps immensely—for example, insulated underwear (the type skiers and hunters use), wool socks, good foul-weather gear, etc. When outfitted properly against the elements, you're ready to take part in the northerner's answer to a Florida or Southern California winter.

TEAM RACING

With the sport of racing growing rapidly in recent years, more and more yachtsmen are being introduced to a very exciting type of racing—team racing. Here is a brief outline of how teams race.

Type of Boat. Any evenly matched one-design class.

Type of Course. Best of all is a right triangle with the right angle at the windward mark. On the first round the triangle is completed, and on the second round the second mark is omitted (i.e., a windward-leeward second round). Such a course provides every point of sailing—dead beat, beam reach, broad reach and dead run—with a second windward leg for good measure.

Scoring of Team Races. In each individual race, 1 point for every boat you beat, 4 points for sailing the course, and an extra ¼ point for the winner. (In team racing, as opposed to fleet racing, it is important to have the same increment of 1 point between all finishing positions from first to last.) For a series of team races there are two possible methods of scoring:

1. Race by Race: The winning team to be the first to win 2 races out of a possible 3, or 3 out of a possible 5, or 4 out of a possible 7. Each race is scored separately. This method brings out the best in team racing and team tactics.

2. Total Points Carried Forward: The number of races is specified in advance. Each team's points are added up, race by race, the team with the greater total at the end of the final race being declared the winner. This method should be discouraged because one fluky day, or a disablement or disqualification, can easily decide the whole series.

Mathematical Considerations: In a match between two 4-boat teams, calculations of the possible scoring combinations show (barring disablement or disqualification) that there are 70 ways for a team to finish—35

ways of winning, and likewise, 35 ways of losing. Of the 35 ways to win, 28 of the 35 include first place. Thus the first boat to finish is theoretically on the winning side 4 times out of 5. In practice, however, these odds do not quite hold, because after the leading boat finishes, the other team then has 4 boats with which to "gang up" on the remaining 3. Under certain conditions this numerical advantage toward the end of a race may prove decisive, thus considerably minimizing the theoretical importance of first place. If the first 2 boats to finish are of the same team, it is impossible for that team to lose, barring disablement or disqualification. This 1-2 finish is known as the "big double." If first place goes to your opponents, there are only 7 ways out of 35 for your team to win, and 6 of these 7 require both second and third places. This 2-3 finish is known as the "little double." If a boat withdraws after fouling, or is disabled, this makes your team lose the race (theoretically) 4 times out of 5. In practice, the penalty for your team is even more severe, because your opponents then have a numerical advantage of 4 boats against your 3. Last place is almost as bad a handicap because the last-place boat causes your team to lose the race 5 times out of 7.

In view of these mathematical peculiarities of the scoring system, it is most important for your team to keep from fouling, keep out of last place, and secure first place—in about that order. Don't forget that if your team at any time needs 2 more points, you can win if only one of your boats passes an opponent, because when you gain a point your opponents likewise lose a point—a net gain of 2 for you.

CHAPTER 5

Handicap and Distance Racing

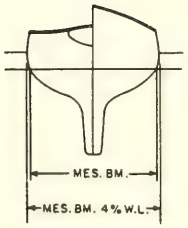
As was stated in the last chapter, racing can be done either even-up or handicapped. As we said, most one-design class races are sailed without handicap, although some yacht clubs and racing associations work out a system of some type by which a boat that wins a race incurs a handicap penalty in the next. Actually, when such a method is used, the skipper is handicapped rather than the boat since the boats are one-designs. Handicaps, however, become necessary when boats of different sail area and hull size race against each other. When this occurs there are two main systems employed: 1. Handicaps by "time-on-time"; and 2. Handicaps by "time-on-distance."

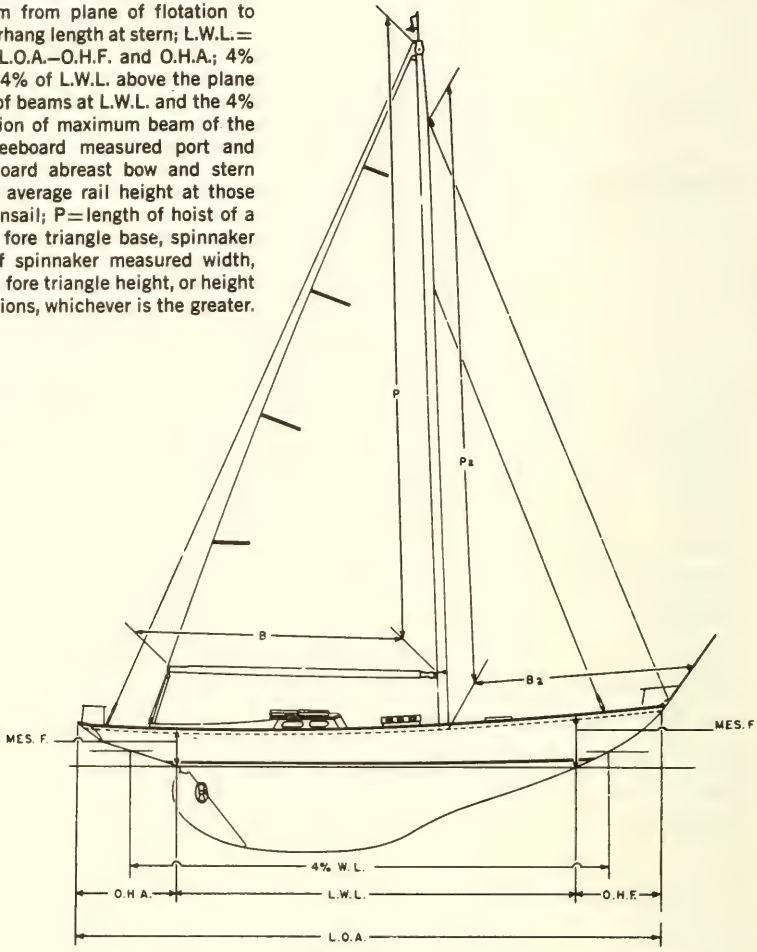
In the time-on-time system the allowance is calculated at a given number of seconds or minutes per hour of the finishing time either of the leading boat, or more often, of the individual boat which is receiving the handicap. Time-on-distance system is calculated according to the length of the course.

Both handicap systems have their faults and under some weather conditions each may favor one boat over another boat. For example, the time-on-time system generally gives an advantage to the small boat should the race be sailed in light air conditions with periods of calm; for its time allowance over the larger craft increases while both are becalmed. In a time-on-distance race, on the other hand, no more allowance is given if the course is a dead beat against strong winds than if the course were a straight run in good weather the entire way.

Whether a race is based on time or distance, many different rating formulae have been devised to establish what handicap one boat should receive against another. In general, they cater to a class of boats more or less uniform in design and sail area. With the N.A.Y.R.U. Time Allow-

Here are some of measurements taken to determine C.C.A. rating: L.O.A.=length from aftermost part of hull to intersection of forward side of stem and top of covering board; O.H.F.=overhang length of stem from plane of flotation to forward L.O.A. point; O.H.A.=overhang length at stern; L.W.L.=load waterline length, which is L.O.A.–O.H.F. and O.H.A.; 4% W.L.=length measured at point 4% of L.W.L. above the plane of flotation; Mes. Bm.=average of beams at L.W.L. and the 4% W.L. taken at fore and aft position of maximum beam of the L.W.L.; Mes. F.=average of freeboard measured port and starboard to top of covering board abreast bow and stern endings of L.W.L. plus half the average rail height at those points; B=length of foot of mainsail; P=length of hoist of a jib-headed mainsail; B_2=actual fore triangle base, spinnaker pole length, or a percentage of spinnaker measured width, whichever is greatest; P_2=actual fore triangle height, or height determined by spinnaker dimensions, whichever is the greater.





ance system, the scale is based on the rating and distance sailed which gives a fixed time allowance regardless of the elapsed time of the race—a time which will vary under different sailing conditions.

While there are other simpler rules in current use which provide fairly accurate comparative ratings, most racing-cruising boats in American waters are currently designed to the Cruising Club of America (C.C.A.) Measurement Rule.

In the comparing of the relative potential speeds of different-sized

boats, the C.C.A. rule starts with the accepted theory that the potential speed of a boat varies approximately in proportion to the square root of the waterline length = $\sqrt{\text{LWL}}$. The time-allowance tables contained herein are based on this fact. These tables, long ago standardized and used by the N.A.Y.R.U., New York Yacht Club and other organizations, give the number of seconds it will take theoretically for a boat of given waterline length to go one nautical mile under average racing conditions.

To use these time-allowance tables in comparing the performance of boats of varying design and size required the development of a formula or rating rule which would provide corrections to the waterline length for size and design factors which vary from a standard. Such a formula would then correct the waterline length to a *rated length* (R) which could be used in the time-allowance tables to determine the relative average racing-condition time per mile for varying types of boats. These times could then be used for determining a fair-time handicap for all boats in a race—using the time for the highest rated boat as the scratch or base time from which differences in time could be calculated for the length of course—and thereby establish handicaps for all boats which would be relative to the scratch boat and all others.

The measurement rule of the C.C.A. is a formula for correcting the waterline length of a boat to obtain a rated length. It takes into consideration the principal factors which affect the potential speed of a boat. It endeavors to correct for differences in design which tend to increase or decrease the speed of a boat in relation to a standard, so that in applying these corrections, all boats in a race will be on an equitable basis as far as these factors are concerned.

For instance, the power to drive a boat through the water is obtained from the sails, and therefore more sail area, or a more efficient sail plan, will increase speed, while the reverse is true with less sail area or a less efficient sail plan. The formula endeavors to correct for variations in sails and to convert variations from a standard, or base, into a change in waterline length.

However, displacement, or the weight of a boat, offers resistance to hull movement through the water, and therefore the rule endeavors to allow for variations from a standard or base displacement by giving a credit or reduction in waterline length when displacement is greater than a

(As modified, effective 1 January 1960)

MEASUREMENT CERTIFICATE, CRUISING CLUB OF AMERICA 1960 RULE

OWNER ..... YACHT NAME .....

Designer ..... RIG .....

RACING NO. .....

SAILS

	Meas. S.A.	Rated S.A.	Spcl. Fctrs.
Mainsail & Topsail — B, P, G, H, T, P abv. dk.			
Fore Triangle — P_2, J; Jib foot length exceeds Spinnaker Pole = ; $X.4P_2$ =			
Sails between Masts of Schooners — B_1, P_1, P_3, H, G, P abv. dk.			
Mizzen — Bmiz, Bmiz rated, Gmiz; Pmiz, Pmiz abv. dk., Hmiz, Tmiz			
Spinnaker: Act. Luff or Leach (*l*) = ____ Act. Width ____			
Act. Width / 1.8 = $\sqrt{\left(\frac{l}{.95}\right)^2 - (B_2)^2}$ =	Total		
	$\sqrt{RSA}$		

Ballast:

Keel (Lead, Iron)		Length Over All	Tc. =
Inside, incl. gear		Bow Overhang	
Weight of centerboard		Stern Overhang	
Excess weight of cb. X2		Load Water Line	X.3 =
Total weight—Mes. Bal.		Extension 4% W.L. for'd	
Displacement in lbs		Extension 4% W.L. aft	
Ratio, Mes. Bal./Disp.		4% W.L.	X.7 =

Beam

"Bm" Max. L.W.L.		Mes. Bm. or .21 "L"+3.8		Mes. Bm.	
"Bm" 4% W.L.		Base Bm. (.187 "L" +3.2)		.21 "L"+3.8	
2)		difference		excess	
Mes. Bm.		diff. X(1.5 or 1.4)		+	"Bm" =

	"L"		
	+		
"Bm" =	+		−

"Dra."

Mes. Dra. .....

Centerboard factor: Max. *Exposed area of c.b. in sq. ft.* / .167 "L" = ____

Actual Area of Centerboard = ____

Rated dra. (sum) .....

Base dra. (.147 "L" + 1.5) .....

Difference (diff.)

Keel yachts: diff. x (.85 or .75) ....., Centerboard yachts: (see 606 b) "Dra" = + −

"Disp."

$\sqrt[3]{\text{Mes. Disp.}}$	$\sqrt[3]{\text{Mes. Disp.}}$	Mes. Disp. (cu. ft.). =	
.179L + .8	1.125 (.179L + .8)		
difference	difference		
diff.X(4 or 3.5)	diff. X 2	+.4(.179"L"+.8)	"Disp." = + −

"S"

$\sqrt{\text{Rated Sail Area (R.S.A.)}}$		4.3 (.179"L" + .8)	
$\sqrt{\text{Base Sail Area 4.3.(.179"L"+.8)}}$		$\sqrt{\text{R.S.A.}}$	
difference	X1.15	difference	"S" = + −

"F"

freeboard at for'd end L.W.L.		Base F(.0566"L"+1.1)	Mes. F	
freeboard at aft end L.W.L.		Mes. F or (.069"L"+1.2)	.069"L"+1.2	
Rail height for'd	2)	difference	excess	
Rail height aft		diff.X(2 or 1.5)	excessX.75	
4)			1.5Xdiff.	
Mes. F				"F" = + −

"I" .0185 "L" ____ X(Iron ballast/Total ballast) ____ = − "I" = + −

"Prop" Type ____ Dia ____ ft. No. Blades ____ + −

Blade Width ____ Location ____ Depth ____ ft.

"Prop" = 1 − $\left(\frac{\text{Prop. Fctr} \times \sqrt{\text{Depth}} \times \text{Dia.}}{14 \times \sqrt{\text{Base Draft}} \times \sqrt[3]{\text{Mes. Disp.}}}\right)$ = ____ = Corr. "L"

"Bal R"

Base Bal/Disp. = .44 + .7 $\left(\frac{\text{Base Bm—Mes. Bm}}{\text{Base Bm}}\right)$ = ____

or

= .44 − $\left(\frac{\text{Mes. Bm—Base Bm}}{\text{Base Bm}}\right)$ = ____

"Bal R" = 1 + .7 (Mes. Bal/Disp.—Base Bal/Disp.) = ____

or

= 1 − .35 (Base Bal/Disp.—Mes. Bal/Disp.) = ____

Measured ____ 196__

Calculated ____ 196__

By ____

Measurer of ____

RATING = .93 x Corr."L"____x"Bal R"____x"Prop"____ = ____

Sample measurement certificate of the Cruising Club of America

TIME ALLOWANCE TABLES

For One Nautical Mile, In Seconds and Decimals

Rating—Allowance	Rating—Allowance	Rating—Allowance	Rating—Allowance	Rating—Allowance	Rating—Allowance
15.0—381.35	21.0—294.98	27.0—239.33	33.0—199.65	39.0—169.52	45.0—145.64
.1—379.49	.1—293.87	.1—238.56	.1—199.08	.1—169.08	.1—145.28
.2—377.65	.2—292.76	.2—237.79	.2—198.51	.2—168.64	.2—144.92
.3—375.83	.3—291.65	.3—237.03	.3—197.95	.3—168.19	.3—144.56
.4—374.03	.4—290.56	.4—236.27	.4—197.39	.4—167.75	.4—144.20
.5—372.26	.5—289.48	.5—235.52	.5—196.83	.5—167.31	.5—143.85
.6—370.50	.6—288.40	.6—234.78	.6—196.27	.6—166.88	.6—143.50
.7—368.76	.7—287.33	.7—234.04	.7—195.72	.7—166.45	.7—143.15
.8—367.03	.8—286.26	.8—233.30	.8—195.17	.8—166.02	.8—142.80
.9—365.31	.9—285.20	.9—232.57	.9—194.63	.9—165.60	.9—142.46
16.0—363.64	22.0—284.15	28.0—231.84	34.0—194.09	40.0—165.18	46.0—142.12
.1—361.97	.1—283.10	.1—231.11	.1—193.54	.1—164.75	.1—141.78
.2—360.31	.2—282.07	.2—230.39	.2—193.00	.2—164.32	.2—141.43
.3—358.66	.3—281.04	.3—229.67	.3—192.46	.3—163.88	.3—141.08
.4—357.02	.4—280.02	.4—228.95	.4—191.92	.4—163.46	.4—140.74
.5—355.39	.5—279.00	.5—228.24	.5—191.38	.5—163.04	.5—140.39
.6—353.79	.6—277.99	.6—227.53	.6—190.85	.6—162.62	.6—140.04
.7—352.21	.7—276.99	.7—226.82	.7—190.32	.7—162.21	.7—139.70
.8—350.64	.8—276.00	.8—226.12	.8—189.79	.8—161.80	.8—139.37
.9—349.08	.9—275.01	.9—225.43	.9—189.28	.9—161.39	.9—139.04
17.0—347.52	23.0—274.03	29.0—224.74	35.0—188.76	41.0—160.98	47.0—138.71
.1—345.99	.1—273.06	.1—224.05	.1—188.24	.1—160.56	.1—138.38
.2—344.47	.2—272.09	.2—223.37	.2—187.72	.2—160.15	.2—138.05
.3—342.96	.3—271.13	.3—222.68	.3—187.20	.3—159.74	.3—137.71
.4—341.46	.4—270.17	.4—222.00	.4—186.68	.4—159.34	.4—137.38
.5—339.97	.5—269.22	.5—221.33	.5—186.17	.5—158.93	.5—137.05
.6—338.50	.6—268.27	.6—220.66	.6—185.65	.6—158.52	.6—136.73
.7—337.04	.7—267.33	.7—219.99	.7—185.15	.7—158.12	.7—136.40
.8—335.60	.8—266.40	.8—219.32	.8—184.64	.8—157.73	.8—136.07
.9—334.17	.9—265.48	.9—218.66	.9—184.14	.9—157.33	.9—135.74
18.0—332.75	24.0—264.55	30.0—218.00	36.0—183.64	42.0—156.93	48.0—135.41
.1—331.33	.1—263.64	.1—217.34	.1—183.14	.1—156.53	.1—135.08
.2—329.93	.2—262.73	.2—216.70	.2—182.64	.2—156.13	.2—134.76
.3—328.54	.3—261.82	.3—216.05	.3—182.15	.3—155.74	.3—134.44
.4—327.17	.4—260.92	.4—215.40	.4—181.66	.4—155.35	.4—134.11
.5—325.83	.5—260.03	.5—214.75	.5—181.16	.5—154.96	.5—133.79
.6—324.48	.6—259.14	.6—214.11	.6—180.67	.6—154.57	.6—133.47
.7—323.14	.7—258.26	.7—213.48	.7—180.19	.7—154.19	.7—133.16
.8—321.82	.8—257.38	.8—212.85	.8—179.71	.8—153.80	.8—132.85
.9—320.50	.9—256.51	.9—212.23	.9—179.23	.9—153.42	.9—132.54
19.0—319.19	25.0—255.65	31.0—211.61	37.0—178.75	43.0—153.04	49.0—132.22
.1—317.89	.1—254.78	.1—210.98	.1—178.27	.1—152.66	.1—131.90
.2—316.60	.2—253.92	.2—210.36	.2—177.79	.2—152.28	.2—131.58
.3—315.32	.3—253.07	.3—209.74	.3—177.31	.3—151.90	.3—131.27
.4—314.05	.4—252.23	.4—209.11	.4—176.83	.4—151.52	.4—130.96
.5—312.78	.5—251.39	.5—208.50	.5—176.36	.5—151.14	.5—130.64
.6—311.53	.6—250.55	.6—207.89	.6—175.90	.6—150.76	.6—130.33
.7—310.29	.7—249.72	.7—207.28	.7—175.43	.7—150.38	.7—130.03
.8—309.06	.8—248.89	.8—206.68	.8—174.96	.8—150.01	.8—129.72
.9—307.84	.9—248.07	.9—206.08	.9—174.50	.9—149.65	.9—129.42
20.0—306.62	26.0—247.25	32.0—205.48	38.0—174.04	44.0—149.28	50.0—129.12
.1—305.42	.1—246.44	.1—204.88	.1—173.58	.1—148.91	.1—128.81
.2—304.24	.2—245.63	.2—204.29	.2—173.12	.2—148.54	.2—128.50
.3—303.05	.3—244.82	.3—203.70	.3—172.67	.3—148.17	.3—128.20
.4—301.87	.4—244.02	.4—203.11	.4—172.21	.4—147.80	.4—127.89
.5—300.71	.5—243.23	.5—202.52	.5—171.76	.5—147.43	.5—127.58
.6—299.54	.6—242.44	.6—201.94	.6—171.30	.6—147.07	.6—127.28
.7—298.39	.7—241.66	.7—201.36	.7—170.84	.7—146.71	.7—126.98
.8—297.25	.8—240.88	.8—200.79	.8—170.40	.8—746.35	.8—126.68
.9—296.11	.9—240.10	.9—200.22	.9—169.96	.9—145.99	.9—126.39

Time allowance table

standard, and by giving a penalty or increase in waterline length when displacement is less than a standard.

Similarly, beam affects the speed of a boat. As a general rule, an increase in beam increases wave-making resistance, and it also increases wetted surface, thus increasing skin-friction resistance. However, as explained below, it must be realized that if a boat has insufficient beam it cannot properly carry her sail and therefore will suffer when on the wind. The formula provides for a decrease in the waterline length for increased beam above a standard, or for an increase in the waterline length for decreased beam below a standard.

Also, the draft of a boat has a considerable effect on speed. A boat with light draft may benefit by having less wetted surface, whereas deep draft lowers the center of gravity, thus adding to stability and sail-carrying capacity, as well as perhaps giving a more effective lateral plane, or better performance to windward.

Although corrections for these factors, plus corrections for freeboard, propellertype and location, centerboards and iron versus lead keels are important and necessary; they are direct calculations by themselves as to their effect on speed and on rating.

However, stability is a very important factor in determining the sailing qualities of a boat, as it involves the combined effect of many of the other factors. It is therefore necessary to devise a formula to take stability into consideration in order that variations in it may be properly evaluated. This results in some of the more complicated calculations of the measurement rule for translating stability into the effect on speed and rating. Ballast-to-displacement ratios and measured beam-to-beam ratios are needed from which is derived a correction factor to rating. For instance, more ballast or more beam increases the stability of a boat and results in a penalty correction to rating, but the corresponding increase in displacement or beam derived by their respective formulas increases the resistance of the hull through the water, and results in a credit correction to the rating; so that a loss in one adjustment may be offset to some extent by a gain in another.

Therefore, in the final calculation of the rating, the plus-and-minus corrections for all the factors are summed up and applied in the rating formula to determine the rated length of the boat.

The C. C. A. Rating Formula is as follows—

Rated Length (R)=.93 (L±Bm±Dra.±Displ.±S±F—I)×Bal. R×Prop.

This (R) is used at "Rating" in the time-allowance table to determine the seconds per mile or "Allowance."

To find the allowance a yacht of any given rating should receive from a larger one, take the figure to be found opposite the smaller rating; from this subtract the figure opposite the measurement of the larger yacht; and the difference, multiplied by the number of nautical miles in the course, is the amount of time allowance due the smaller vessel, in seconds and hundredths of a second. Example:

Boat A—Rating 36.7
Boat B—Rating 42.3
Course length 675 nautical miles
Boat A allowance from table
(for 36.7)=180.19 seconds per mile
Boat B allowance from table
(for 42.3)=155.74 seconds per mile
Boat B allows Boat A (subtract B
allowance from A allowance)
24.45 seconds per mile
In the race (675 nautical miles)
B allows A 675×24.45 seconds or 4 hours, 35 minutes, 4 seconds.

The table is based upon the assumption that, under average racing conditions, a yacht of rating measurement, R, will sail one nautical mile in the number of seconds given by the formula.

$$\frac{2160}{\sqrt{R}} + 183.64$$

The allowance per mile between yachts of different ratings will, therefore, be given by

$$\frac{2160}{\sqrt{r}} - \frac{2160}{\sqrt{R}}$$

in which R is the rating measurement of the larger yacht and r that of the smaller yacht.

SEA CLIFF YACHT CLUB

1961

First Annual Cruise Race and Rendezvous for the "Challenge" Trophy

SATURDAY, JUNE 24th
- Execution Rock
- Cable & Anchor Reef
- Cold Spring Harbor

SUNDAY, JUNE 25th
- Cold Spring Harbor
- Whistle Buoy "32A"
- Execution Rock

Racing circular for the Sea Cliff Yacht Club's Annual Cruise Race and Rendezvous for the "Challenge" Trophy


SEA CLIFF YACHT CLUB CRUISE RACE COMMITTEE
John S. Thomson, Chairman
Theodore S. Clark
Robert H. Griffith
Michael L. Costagliola
Norvin H. Rieser, Jr.
Francis West, Jr.
Nautical Miles
SATURDAY, JUNE 24th
SUNDAY, JUNE 25th
RENDEZVOUS SATURDAY
SEA CLIFF YACHT CLUB
HUNTINGTON BAY
Lloyd Neck
West Neck
Oak Neck
Mill Neck
Cove Neck
Centre Island
Oyster Bay Hbr
OYSTER BAY
Cold Spring Harbor
Locust Valley
GLEN COVE
HEMPSTEAD HARBOR
STAMFORD HARBOR
Execution Rocks
Sands Pt
Barker Pt
Dumping Ground
Lloyd Pt
Budd Reef

The theoretical number of seconds required to sail one nautical mile under average conditions (as would be encountered in a triangular race) is obtained by adding 360 to the figure in the table opposite the yacht's rating measurement.

UNIVERSAL RULE CLASSES

Schooners and Ketches

1st Class—	All over 100 feet, rating
100 Foot Class-A	Not over 100 feet and over 88 feet, rating
88 Foot Class-B	Not over 88 feet and over 76 feet, rating
76 Foot Class-C	Not over 76 feet and over 65 feet, rating
65 Foot Class-D	Not over 65 feet and over 56 feet, rating
56 Foot Class-E	Not over 56 feet and over 46 feet, rating
46 Foot Class-F	Not over 46 feet and over 38 feet, rating
38 Foot Class-G	Not over 38 feet and over 31 feet, rating
31 Foot Class-X	Not over 31 feet and over 25 feet, rating
25 Foot Class-Y	Not over 25 feet and over 20 feet, rating
20 Foot Class-Z	Not over 20 feet, rating

Sloops and Yawls

1st Class—	All over 88 feet, rating
88 Foot Class-I	Not over 88 feet and over 76 feet, rating
76 Foot Class-J	Not over 76 feet and over 65 feet, rating
65 Foot Class-K	Not over 65 feet and over 56 feet, rating
56 Foot Class-L	Not over 56 feet and over 46 feet, rating
46 Foot Class-M	Not over 46 feet and over 38 feet, rating
38 Foot Class-N	Not over 38 feet and over 31 feet, rating
31 Foot Class-P	Not over 31 feet and over 25 feet, rating
25 Foot Class-Q	Not over 25 feet and over 20 feet, rating
20 Foot Class-R	Not over 20 feet and over 17 feet, rating
17 Foot Class-S	Not over 17 feet and over 15 feet, rating
15 Foot Class-T	Not over 15 feet, rating

The Universal Rule rating is not the overall length but is figured on the basis of a formula $R = \frac{L \times \sqrt{3A}}{\sqrt[3]{D}}$

Six-meter class boats employing spinnakers

INTERNATIONAL RULE CLASSES

14½ Meter Class
12 Meter Class
10 Meter Class
8 Meter Class
6 Meter Class

As in the case of the Royal Ocean Racing Club Rule (the system used in Great Britain), the Universal Rule to which the J-boats were designed, and the International Rule to which the 12-meters are designed, the

Cruising Club Rule takes into consideration length, displacement, sail area, draft, freeboard, beam and finally, stability. In the Cruising Club Rule direct recognition is given to each of these factors. In the other rules some of these factors are recognized only directly. Nevertheless, all factors are taken into account in the rules to some extent. In the Cruising Club Rule in particular an effort is made to evaluate the effect of each of the factors on the speed of a given boat. This is not the case in the Universal Rule or the International Rule, in which the penalties for exceeding one or more limits are so great that the limits for one or more measurements are rarely exceeded. The measurements so limited in one or the other of the two rules include displacement, draft, freeboard and beam. In the latter two rules, in effect, the provisions of the rules design the boat, leaving very little latitude for the preference of an owner or a designer.

So the difference between the concept of the Cruising Club Rule and that of the Universal and International Rules is that the Cruising Club Rule attempts to cover a wide range of yachts without restricting the designs and thereby permits many different designs to compete under it. With this desirable freedom from design restrictions and the resultant challenge to ingenuity and progress of design by boat owners and designers, the Cruising Club Rule may have to be changed from time to time to meet new conditions and developments created by competitive yachtsmen and their designers. C.C.A. Ratings are given for the more popular one-design racing-cruising boats described in Chapter 7.

DISTANCE RACING

Distance racing—often called ocean racing—generally takes place over courses of varying lengths, raced by cruising-racing craft under some type of handicap system. Such events may be one-day affairs, overnighter or rendezvous races; or may occupy several days and involve great distances such as Newport to Bermuda. The sport of distant or ocean racing is quite different when compared to one-design racing described in Chapter 4 since the result does not depend solely on speed. Navigation plays an important part in it, for the fastest craft, if it made a bad landfall, might finish among the "also rans." The navigator is therefore perhaps the most

important member of the crew, although the cook isn't far behind, for if—as Napoleon stated—an army marches on its stomach, the crew of an ocean (distance) racing yacht sails on theirs.

As with other types of racing, the actual techniques involved in sailing on a distance race are not included in this book. There are several good books listed on this subject in the glossary. However, the racing-cruising boats described in Chapter 7 are capable of entry into this type of racing.

MIDGET OCEAN RACING CLUB

The Midget Ocean Racing Club (MORC) was organized to promote medium to long-distance racing on a handicap basis in small sailing craft up to 29.99 feet in overall length. It is not intended that these yachts participate in ocean-racing events such as the Bermuda Race, but rather in races which will allow them to sail in what may be classified as semi-protected waters, such as are found along the coasts and in the Great Lakes of the United States. The success of racing on this scale depends largely upon the safety of the yachts and their crews, and for this reason certain safety requirements must be met before a yacht may participate in MORC events.

For example, the yachts must be self-righting. In cases when the measurer is not satisfied with the safety of the boat, he may ask for a self-righting test. During this test, after closing hatches, scuttles and vents, the boat shall be hove down on its beam ends, and with the mast weighted with all the working sails attached to the jib-halyard block, must return to the upright position. There are many other safety requirements a boat must meet to be approved by the MORC. Should you wish complete specifications, send $1 to cover the cost of handling and mailing, to the following address:

Mrs. Ray Nelson, Secretary
421 West 118th Street
New York, New York

To give some idea as to the basic racing instructions of MORC, the following cover all races run by the New York Station:

1. *Management:* Races will be managed under the sole jurisdiction of

Two popular MORC one-designers: the Shaw 24 (*left*) and the Dolphin (*right*)

the Race Committee, or its designated representatives, which shall have authority to interpret the rules and conditions of the race, to decide protests and to reject at any time prior to the preparatory signal for the start of a race the entry of any yacht which, in its opinion, is deemed unseaworthy or is not complying with the letter or spirit of the rules and conditions of the race. There shall be no appeal from such decisions.

2. *Inspection:* The Race Committee, or its designated representatives, reserves the right to inspect yachts and examine all gear to determine suitability and operating efficiency before the start of any race. Any yacht may be prohibited from starting for noncompliance with the requirements or if, in the opinion of the committee, it is otherwise considered improperly conditioned or equipped, it may be subject to a penalty of 10 per cent of its rated length. For overnight races boats must appear

at the designated starting area at least one and one half hours prior to the preparatory signal for the start.

3. *Eligibility:* Yachts must be single-hulled vessels under 30′ length overall (LOA) and must comply in all other respects with the MORC rule.

4. *Measurement and Rating:* It is the sole responsibility of each owner to furnish valid copies of the current measurement certificate to both Willam H. Shaw and the chairman of the race committee not later than two weeks prior to the first race of the season in which the yacht is entered. Each yacht must be measured or remeasured and rated in accordance with the MORC Measurement Rule Revision 3, dated June, 1959.

Certificates valid under 1959 rules will be accepted provided that a yacht has not been altered, since day of measurement, so as to change any of the factors entering into measurement. If any alterations be made affecting measurement the yacht must be remeasured. In all cases a yacht's most recent measurement certificate must be furnished.

5. *Sails:* Only spinnakers measured under the MORC Rule may be used.

6. *Time Allowance:* The elapsed time of each yacht will be converted to corrected time by applying the Time-Allowance Tables (enclosed) of the North American Yacht Racing Union for 150 per cent of the actual course length to be designated in the race instructions.

7. *Special Limitations:* Use of engines for propulsion after the preparatory signal is prohibited. Propeller shafts must be locked where propulsion engines may be used for generating. Hiking devices or outriggers of any type are prohibited.

8. *Crew:* All yachts must carry a minimum of two persons aboard except in overnight races when three shall be a minimum.

9. *Racing Numbers:* These should be affixed to the upper third of the mainsail near the leech in numbers at least 12″ high. Any yacht without a number is to report to the committee boat prior to the preparatory signal and at the finish. Spinnakers need not show a number this year.

10. *Right of Way:* For determining the right of way between contestants the 1961 Edition of the Racing Rules of the North American Yacht Racing Union shall govern. Rule books may be obtained by mailing 75¢ to the N.A.Y.R.U., 37 West 44th Street, New York, New York.

11. *Protests:* All protests must be in writing, signed by the master and mailed to the fleet captain, postmarked not later than 12 noon (EDST) the second weekday following the race. A protesting yacht must display in her rigging a protest flag as specified under Part 6, Rule 68, of the Racing Rules of the N.A.Y.R.U.

In the event a protest involves the right of way the protested yacht, instead of being disqualified, shall, if the protest is sustained, have her corrected time dropped 5 places or its equivalent. Should the offending yacht voluntarily withdraw prior to a hearing, her corrected time position will drop 3 places or its equivalent. If the foul results in two boats touching, the offending yacht, regardless of voluntary withdrawal, shall be disqualified if the protest is sustained.

12. *Abandonment of Race:* Yachts abandoning a race for any reason shall notify the race committee at the earliest possible moment, unless otherwise specified in the race circular.

13. *Haulouts:* Boats are limited to one haulout per season. (Logical exceptions permitted.)

14. *Equipment and Safety Requirements:* In addition to equipment required by regulatory government bodies and by the design requirements set forth in the MORC measurement rule, the following equipment must be carried aboard the yacht, each of a kind consistent with the highest standards of safe operation:

a. Water—Sufficient water must be carried by each yacht in suitable containers. The least acceptable amount shall be ½ gallon per man per day.

b. Life Lines—Each man, when on deck in adverse conditions, shall wear a personal life line of sufficient strength, properly secured to a strong point.

c. Life Jackets—Each man shall have readily available an approved life jacket, fitted with a waterproof electric-marker light, preferably with a red lens.

d. Whistles—Each man, when on deck, shall wear a whistle attached to his clothing.

e. First Aid—Adequate first-aid equipment with full instructions in a marked and readily accessible position. (*First Aid Afloat* by Paul B.

Sheldon, M.D., should be a part of first-aid equipment. This booklet is obtainable at most bookstores.)

f. Storm Canvas—Either a storm trysail and storm jib must be carried or alternatively the working canvas must be suitable for reducing area and withstanding storm conditions.

g. Lights and Signals—Required navigation lights, plus a set of distress signals of the flare- or rocket-type, one powerful spotlight and two waterproof flashlights.

h. Life Raft—The option of an "adequate inflatable life raft," in lieu of flotation, as found on page 2 of the MORC rules shall be interpreted in the New York Station to mean a raft capable of carrying 50 per cent of the crew.

Section II

CHAPTER 6

Major One-Design Racing Sailboat Classes

In this chapter, we have tried to include those racing day-sailer sailboat classes which have found the most popularity, either by virtue of numbers or zealous racing activity. While we have listed the names of the various class associations, we have omitted addresses in most cases because these change each year with the election of different secretaries. But, as a rule, the builders of the various classes keep in close contact with the secretaries of the associations of the types they construct. A letter to either the proper builder or to the National Association of Engine and Boat Manufacturers, Inc., 420 Lexington Avenue, New York 17, N. Y., will give you the address of the association you desire.

It is suggested that prospective sailboat owners write to the class association of interest for more information. In many cases class handbooks are available (either free or at a small charge) which list detailed requirements for building, measuring and racing a particular one-design boat. It is always best to join a class through a local fleet when possible, thus assuring racing competition and perhaps the benefit of a local sailing-instruction program.

Most one-design fleets are affiliated with yacht clubs, and often have a local spokesman who carries on correspondence with the national secretary. Detailed information on local fleets is usually available from the particular one-design class.

Note:

Overall length—Centerline length
Waterline—Waterline length
Beam—Greatest breadth of the boat
Draft—*Centerboard up; **Centerboard fully down
Sail area—Total area of working sails only
Construction material—Hull

The Albacore (*left*) and the Atlantic (*right*)

Albacore

Association Name: North American Albacore Association
Insignia on Sail: Letter "A" (see above)
Type and Dimensions: Centerboard sloop

Overall length—15 feet	Draft—6 inches*
Waterline—14 feet	—4 feet, 9 inches**
Beam—5 feet, 4 inches	Sail area—125 square feet

Construction Material Allowed: Molded plywood
Price Range: New, about $1,000
Principal Builder: O'Dan Corporation, 9 Newbury St., Boston 16, Mass.
Racing Activity: Very popular racing class in England, but only a limited number of fleets are active in the United States. They are at Hyannisport, Mass.; Long Island Sound; Westport, Conn.; New Hampshire and

Toronto. The Albacore Class is governed jointly by the Royal Yachting Association and the North American Albacore Association and class now numbers over 500 boats.

Atlantic

Association Name: Atlantic Class Association
Annual Dues: $5
Insignia on Sail: Letter "A"
Type and Dimensions: Keel sloop
Overall length—30 feet, 6 inches Draft—4 feet, 9 inches
Waterline—21 feet, 6 inches Sail area—385 square feet
Beam—6 feet, 6 inches
Construction Materials Allowed: Fiberglass or wood
Price Range: Price not available for new complete boat. Price of fiberglass hull, $3,135. No kit boats.
Principal Builder: Cape Code Shipbuilding Co., Wareham, Mass.
Racing Activity: Five active racing fleets in Long Island Sound. N. Y. National Championship races held in Long Island Sound yearly. Another fleet in Kollegewidgok, Maine.

BB-11

Association Name and Address: BB-11 Association of San Francisco, 582 Silverado Drive, Lafayette, Calif.
Annual Dues: $5
Insignia on Sail: Letters and numerals "BB-11"
Type and Dimensions: Keel sloop
Overall length—20 feet, 2 inches Draft—3 feet, 3 inches
Waterline—13 feet, 5¼ inches Sail area—119 square feet
Beam—5 feet, 10 inches
Construction Material Allowed: Wood planking
Principal Builder: Borge Bringsvaerd, Drobak, Norway
Racing Activity: Active racing schedule in the San Francisco Bay area
Other Data: The BB-11 is a Norwegian-built day-sailer, accepted as a one-design class by the Royal Norwegian Yacht Club, and under the supervision and control of the Royal Norwegian Yachting Society with respect to uniformity of hull, spars, sail area and weight. Over 350 of these craft

have been built and are to be found in at least four countries other than Norway and the United States.

Beetle Cat

Association Name: New England Beetle Cat Association
Annual Dues: $10 fee for member clubs
Insignia on Sail: A beetle or no insignia at all
Type and Dimensions: Centerboard catboat
Overall length—12 feet, 4 inches Draft—6 inches*
Waterline—11 feet, 8 inches
Beam—6 feet Sail area—90 square feet
Construction Material Allowed: Wood
Price Range: New, about $700; used, $150 to $400
Principal Builder: Concordia Co., South Dartmouth, Mass.
Racing Activity: Over 1,800 of these boats have been built to date and most are located in New England waters. However, there is great racing interest in Beetle Cat racing on the Great South Bay, Long Island Sound, New York. About 42 fleets exist in New England, Great South Bay and Long Island Sound. Annual championship held.
Other Data: The Beetletype craft was built first in 1920 and they are being turned out at the rate of some 50 a year.

Blue Jay

Associaton Name and Address: International Blue Jay Class Association, 11 East 44th St., New York 17, N. Y.
Annual Dues: $3
Insignia on Sail: Black letter "J"
Type and Dimensions: Centerboard sloop
Overall length—13 feet, 6 inches Draft—3 feet, 6 inches**
Waterline—11 feet, 5 inches Sail area—90 square feet
Beam—5 feet, 2 inches
Construction Material Allowed: Marine plywood
Price Range: New, $900 to $1,200; used, $300 to $950; kits $399 up
Principal Builders:
Anchor Line Marine, 2920 W. 11th Ave., Eugene, Ore.
Armstrong Boats, Inc., Rt. 3, Norwell, Mass.

Beacon Boat Co., Box 714, Holland, Mich.
Castle Harbor Boats, 2829 Bird Ave., Miami, Fla.
P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.
Gerber Boat Works, 689 Minneford Ave., Bronx 64, N. Y.
R. Hamann & Sons, RFD, Carmel, N. Y.
Imperial Marine Corp., Phoebus Sta., Hampton, Va.
Island City Boats, 2317 Buena Vista Blvd., Alameda, Calif.
Long Island Yacht Sales, Rt. 25A, Northport, N. Y.
McKean Boats, 180 Prospect Ave., Mamaroneck, N. Y.
Olsen Boat Works, Inc., 70 Commonwealth Ave., Red Bank, N. J.
Roberts Industries, Inc., 39 Post Rd., Branford, Conn.
Saybrook Yacht Yard, Box 322, Old Lyme, Conn.
Sea Gypsy Boats, 1037 Washington Blvd., Sarasota, Fla.
Seaman Seacraft Co., Inc., Herman Ave., Locust Valley, N. Y.
Van Breems International Corp., Seaview Ave., Stamford, Conn.
Vinkers Boat Co., Inc., 180 E. Prospect Ave., Mamaroneck, N. Y.
John Wright, Jr., 308 W. Queen Lane, Philadelphia, Pa.

Racing Activity: Heavy interfleet (85 local fleets active) competition on both East and West Coasts, plus an Annual Association Open Regatta. Class totals, over 2,700 boats. About 200 boats are outside the United States. This class can be considered the fastest growing in the United States today. About 350 boats are added to it each year.

Other Data: About one-third of all Blue Jays have been built by amateurs, mostly in group programs. This class boat is the official junior boat of virtually every yacht club on Long Island Sound and is raced by all age groups in all parts of the United States and Canada.

Bull's Eye

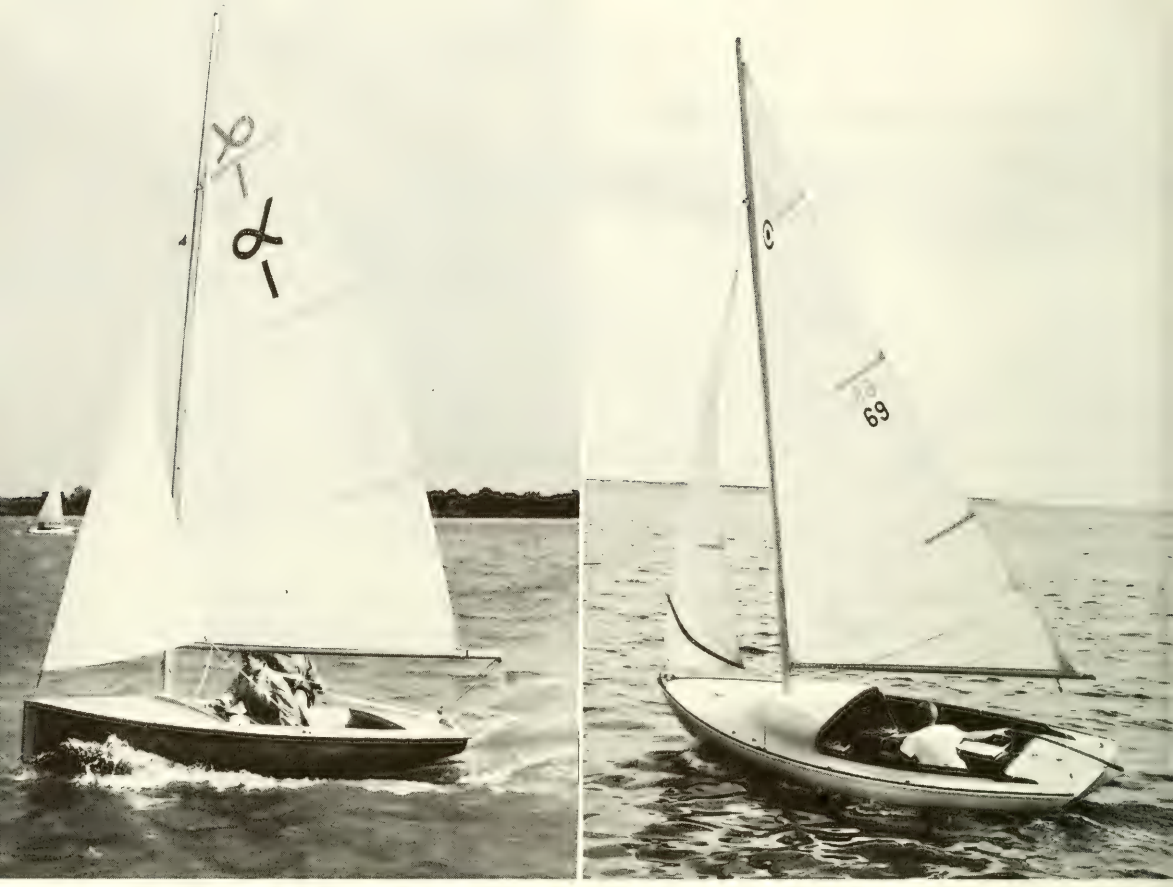
Association Name: Cape Cod Bull's Eye Class Association

Insignia on Sail: A bull's eye

Type and Dimensions: Keel sloop

Overall length—15 feet, 8½ inches
Waterline—12 feet, 6¾ inches
Beam—5 feet, 10 inches
Draft—2 feet, 5 inches
Sail area—90 square feet

Construction Materials Allowed: Bull's Eye has been built since 1914 in wood, and since 1948 in fiberglass



The Alpha (*left*) and the Bull's Eye (*right*)

Price Range: New, fiberglass, with dacron sails—about $2,000. No kit boats.

Principal Builder: Cape Code Shipbuilding Co., Wareham, Mass.

Racing Activity: The boats are raced at Bar Harbor, Maine; Dark Harbor, Maine; Marblehead, Mass.; on Long Island Sound; many clubs in Buzzards Bay with the largest fleet at the Beverly Yacht Club, Marion, Mass.; Narragansett Bay, with the largest fleet at Bristol, R. I. In all, there are about 20 fleets and over 400 boats racing.

Cadet

Association Name: International Cadet Class Association
Insignia on Sail: Letter "C"
Type and Dimensions: Centerboard sloop
Overall length—10 feet, 6¾ inches Draft—6½ inches*
Waterline—9 feet, 3 inches —2 feet, 6 inches**
Beam—4 feet, 2 inches Sail area—55½ square feet
Construction Material Allowed: Plywood
Price Range: New, about $500
Principal Builders:
O'Day Corporation, 9 Newbury St., Boston 16, Mass.
John Wright, Jr., 328 W. Queen Lane, Philadelphia 44, Pa.
Racing Activity: The Cadet Class is governed by the Royal Yachting Association. There are over 3,000 in 26 countries of the world, but the class

Cadet Class boats being raced by junior sailors

is growing in the United States at a fairly slow rate. There are, however, several fleets in the Boston area as well as Severn River, Maryland; Suffolk, L.I.; Norwalk, Conn.; Westport, Connecticut; and throughout Canada.

Celebrity and Celebrity K

Association Name: International Celebrity Class Yacht Racing Association
Annual Dues: $5
Insignia on Sail: Letters "C" or "CK" (see below)
Type and Dimensions: Celebrity is a centerboard sloop; Celebrity K is a keel sloop

The Celebrity Class is made in two designs: the Celebrity at the left is a centerboard sloop; the Celebrity K is a keel sloop (*right*). They don't race together, there being separate fleets of each design. Both designs, however, belong to the same association

Overall length—19 feet, 9 inches
Waterline—15 feet, 9 inches
Beam—6 feet, 4 inches
Draft—6 inches*
—3 feet, 3 inches**
—2 feet, 5 inches (keel)
Sail area—172 square feet

Construction Material Allowed: Molded plywood
Price Range: New, with sails, $1,875; used, $1,200 to $1,500
Principal Builder: P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.

Racing Activity: There are a good number of active fleets having full racing schedules throughout the sailing season. Fleets also participate in the more important invitational regattas. Both the Celebrity and Celebrity K's have a North American Championship Regatta each year to determine class champions.

Other Data: The Celebrity has enjoyed tremendous popularity since its introduction in 1953. It is often sailed with six and eight people on board. It has an unusual arrangement whereby the athwartship-cockpit seats are removable and the cockpit can be used for limited cruising. All space is well utilized and the boat has an unusual amount of storage space.

Chesapeake 20

Association Name: Chesapeake 20 Association
Annual Dues: $2
Insignia on Sail: Red and blue ball
Type and Dimensions: Centerboard sloop

Overall length—20 feet
Beam—Not less than 6 feet
Sail area—250 square feet

Construction Material Allowed: Wood planking
Price Range: New, about $3,000; used, $500 to $1,400
Principal Builder: Hartge Boat Yard, Galesville, Md.
Racing Activity: Active racing schedule in the Chesapeake Bay area

Clipper

Association Name: Clipper Class Association
Insignia on Sail: Letter "C"
Type and Dimensions: Keel sloop

Overall length—20 feet
Waterline—14 feet
Beam—5 feet, 6 inches
Draft—3 feet, 2 inches
Sail area—170 square feet
Construction Material Allowed: Wood
Price Range: New, about $1,850; used, $1,000 to $1,500
Principal Builder: Myron Spaulding, Gate 5, Marinship, Sausalito, Calif.
Racing Activity: A Pacific Coast one-design class. There are approximately 100 boats active in the West; fleets in the San Francisco Bay area.

Comet

Association Name: Comet Class Yacht Racing Association, Inc.
Annual Dues: Regular members, $7, associate members, $2
Insignia on Sail: A comet (see page 45)
Type and Dimensions: Centerboard sloop
Overall length—16 feet
Waterline—14 feet, 6 inches
Beam—5 feet
Draft—6 inches*
Sail area—136 square feet
Construction Materials Allowed: Wood or fiberglass
Price Range: New, fiberglass, less sails, about $1,200
Principal Builders:
David Beaton & Son, Mantoloking, N. J.
Carl N. Beetle, Fall River, Mass.
Customflex, Inc., 3409 South St., Toledo, Ohio
Lippincott Boat Works, Riverton, N. J.
Olsen Boat Works, Inc., 70 Commonwealth Ave., Red Bank, N. J.
Siddons & Sindle, Inc., 15 Central Ave., Island Heights, N. J.
Racing Activity: There are about 150 active fleets throughout the United States with over 4,000 boats in use.

Cottontail

Class Association: Cottontail One-Design Association
Insignia on Sail: Cottontail rabbit
Type and Dimensions: Centerboard sloop or catboat
Overall length—15 feet, 10 inches
Waterline—13 feet, 10½ inches
Beam—5 feet, 1 inch
Draft—3 feet**
Sail area—140 square feet

Construction Material Allowed: Fiberglass
Price Range: New, with sails, about $1,250
Principal Builder: Holiday Yachts, Inc., P. O. Box 227, Centerport, L.I., N.Y.
Racing Activity: Raced on both the North and South Shore of Long Island and on Lake Erie.

Crickett

Association Name: Crickett Class Sailing Association
Annual Dues: $2
Insignia on Sail: Script letter "C"
Type and Dimensions: Centerboard sloop

Overall length—12 feet	Draft—6 inches*
Waterline—11 feet, 8 inches	2 feet, 10 inches
Beam—4 feet, 7 inches	Sail area—85 square feet

The Cottontail (*left*) and the 420 Class (*right*)

The Day Sailer (*left*) and the Enterprise (*right*)

Construction Material Allowed: Plywood; fiberglass covering optional
Price Range: New, about $800; used, from $500 to $700; kits, about $500
Principal Builder: Island City Boats, Inc., 2317 Buena Vista Ave., Alameda, Calif.
Racing Activity: Major activity in Central and Southern California

Day-Sailer

Association Name: National Day-Sailer Association
Annual Dues: $5
Insignia on Sail: Letters "DS"

Type and Dimensions: Centerboard sloop
Overall length—16 feet, 6 inches Draft—8½ inches*
Waterline—16 feet —4 feet**
Beam—6 feet Sail area—145 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $1,700; used, from $1,400 to $1,600
Principal Builder: O'Day Corporation, 9 Newburg St., Boston 16, Mass.
Racing Activity: Heaviest on Chesapeake Bay, San Francisco Bay, in the Great Lakes area and in Northern and Southern California. On the West Coast this boat is sometimes called the "California Day Sailer"
Other Data: This craft is an excellent family sailboat since it is good both for racing and comfortable day-sailing.

Dragon

Association Name and Address: American International Dragon Association, 765 Stuart Building, Seattle, Wash.
Annual Dues: $5
Insignia on Sail: Letter "D"
Type and Dimensions: Keel sloop
Overall length—29 feet, 2½ inches Draft—3 feet, 11 inches
Waterline—18 feet, 8 inches Sail area—235 square feet
Beam—6 feet, 5 inches
Construction Materials Allowed: Various woods specified in rules, planking of any wood provided the minimum weight of such wood is not less than 550 kilograms per cubic meter (33 pounds per cubic foot). No plywood, molded plywood or fiberglass in hull proper.
Price Range: New, $4,000 to $6,000; used, $1,000 to $6,000
Principal Builders:
Victor Carpenter, 2385 Meadow St., Flushing, Mich.
Norge Boats, Inc., Southfield Ave., Stamford, Conn.
Vator Oy, Et. Ranta 10, Helsinki, Finland
Racing Activity: Total number of boats active in United States about 160, and in the world about 2,000. The Dragon is one of the five Olympic Games five class boats.
Other Data: This class of boat can be used for day sailing and in cases they come equipped with full cabin areas with bunks (2 to 4), galley, etc. Even some Dragons are powered by auxiliary engines.

Duster

Association Name and Address: Duster Class Yacht Racing Association, Riverton, N. J.
Annual Dues: $3
Insignia on Sail: Letter "D"
Type and Dimensions: Centerboard catboat
Overall length—13 feet, 9 inches Draft—3 inches*
Waterline—8 feet, 9 inches Sail area—117 square feet
Beam—4 feet, 6 inches
Construction Material Allowed: Plywood. May be covered with fiberglass
Price Range: New, about $750; used, about $325; kits, $350 up
Principal Builder:
No principal builders; most boats are custom made. In kit form it is available from Robert Industries, Inc., 39 Post Rd., Branford, Conn.
Racing Activity: Along East Coast from New York to Virginia. Ten active fleets along coast, with small groups in several midwest areas.

Dyer Dhows

Association Name: Dyer Dhows—no class association yet organized.
Insignia on Sail: Letter "D" superimposed on letter "D"
Type and Dimensions: Centerboard catboat
Overall length— 9 feet Draft—3 inches
Beam—4 feet, 5 inches Sail area—45 square feet
Construction Materials Allowed: Fiberglass since 1949, wood or plywood prior to that
Price Range: New, $495 to $595
Principal Builders:
The Anchorage, Inc., Warren, R. I.
Grampian Marine, Ltd., Oakville, Ontario, Canada
Racing Activity: Frostbite racing at Indian Harbor Yacht Club, Greenwich, Conn.; Norwalk Yacht Club, Norwalk, Conn.; Mamaroneck Frostbite Association, Mamaroneck, N. Y.; Seawanhaka Corinthian Yacht Club, Glen Cove, N. Y.; Huntington Yacht Club, Huntington, N. Y. (over 300 on Long Island Sound); and in smaller numbers throughout the northeast. Also used by Mystic Marine Museum, Mystic, Conn., schools, Boy Scouts and military. Over 1,500 boats in use.

Dyer Dink

Association Name: Ten-Foot One-Design Class "D" Dyer Dinks
Insignia on Sail: Letter "D"
Type and Dimensions: Centerboard catboat

Overall length—10 feet	Draft—3 inches
Beam—4 feet, 3 inches	Sail area—66 square feet

Construction Materials Allowed: Wood from 1934; fiberglass from 1950
Price Range: New, about $675
Principal Builders:
The Anchorage, Inc., Warren, R. I.
Grampian Marine, Ltd., Oakville, Ontario, Canada
Racing Activity: Fleets from coast to coast until World War II. New rules for fiberglass boats now on Long Island Sound. Over 1,000 boats in use.

Eighteen-Foot Knockabout

Association Name: 18-Foot Knockabout Class Association, Inc.

The start of a Dyer Dhows Class frostbiters' race

Annual Dues: $2
Insignia on Sail: Letter "K" (see page 103)
Type and Dimensions: Centerboard sloop

Overall length—18 feet	Draft—1 foot, 2 inches*
Waterline—15 feet, 9 inches	—4 feet**
Beam—6 feet	Sail area—185 square feet

Construction Materials Allowed: Wood and fiberglass
Price Range: New, with sails, about $2,025
Principal Builder: Frost Boat Company, Falmouth, Mass.
Racing Activity: Mostly active in the Southern Massachusetts Yacht Racing Association with approximately 75 boats sailing. Approximately an equal number in the Narragansett Bay, Connecticut and Long Island areas with a few north of Boston, Mass. Most of these boats are wooden.
Other Data: Between 1918 and 1959 the Cape Cod Shipbuilding Company made a wooden 18-foot Knockabout which was known as the "Cape Cod Baby Knockabout." These wooden Cape Cod Knockabouts have been accepted by the Class Association as meeting the specifications of the association and are therefore permitted to race with the fiberglass 18-foot Knockabouts.

El Toro

Association Name: El Toro International Yacht Racing Association
Annual Dues: Active members, $2; associate members, $1
Insignia on Sail: Shovel
Type and Dimensions: Centerboard catboat

Overall length—7 feet, 11 inches	Draft—3 inches*
Waterline—7 feet, 5 inches	21 inches**
Beam—3 feet, 10 inches	Sail area—40 square feet

Construction Material Allowed: Plywood (hull can be finished with fiberglass)
Price Range: New, $275 to $375; used, $150 to $300; kits, $165 to $200
Principal Builders:
Anchor Line Marine, 2920 W. 11th Ave., Eugene, Ore.
Basin Boatcraft Co., 601 Embarcadero, Oakland, Calif.
Bauman Bros., Sausalito Yacht Harbor, Sausalito, Calif.
John C. Berry, Foot of Addison St., Berkeley 10, Calif.

A pair of eighteen-foot Knockabout Class boats. The boat in the foreground has the new official class sail insignia while the boat closest to shore has the old insignia

Casco Bay Boats, 4 Church Street, Woodstock, Vt.
Custom Boat Builders, 208 Harvard St., Norfolk, Va.
Custom Built Boats, County Rd., E. Freetow, Mass.
Imperial Marine Corp., Phoebus Sta., Hampton, Va.
Island City Boat, 2317 Buena Vista Ave., Alameda, Calif.
Rhowen, Inc., 923 Industrial Ave., Palo Alto, Calif.
W. D. Schock Co., 18141 Greenville Rd., Santa Ana, Calif.
H. A. White Co., 212 National Bldg., Seattle 4, Wash.
Racing Activity: There are some 1,500 boats sailing, mostly in California waters, with national championships held each year. In the San Francisco Bay area it is one of the most highly competitive racing classes.

Enterprise

Association Name: Enterprise Association
Annual Dues: $1.80
Insignia on Sail: Letter "E"
Type and Dimensions: Centerboard sloop
Overall length—13 feet, 3 inches Draft—7 inches*
Waterline—12 feet, 2 inches —3 feet, 3 inches**
Beam—5 feet, 3 inches Sail area—113 square feet
Construction Material Allowed: Mahogany plywood
Price Range: New, with sails, $900; used, $700 to $750. Kit boats are also available.
Principal Builders:
P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.
John Wright, Jr., 328 W. Queen Lane, Philadelphia 44, Pa.
Racing Activity: Over 7,000 boats have been built and the majority are racing throughout the world. Many fleet and interfleet regattas as well as international championships.
Other Data: Boat was designed to carry a family of four, and two comprise the racing crew.

Explorer

Association Name: National Explorer Class Association
Insignia on Sail: Special-designed letter "E" (see page 16)
Type and Dimensions: Centerboard sloop

Overall length—17 feet
Beam—6 feet, 4 inches
Sail area—155 square feet
Draft—9 inches*
—4 feet 6 inches**

Construction Material Allowed: Fiberglass
Price Range: New, about $1,800
Principal Builder: Sailstar Boats, Inc., 770 Main St., West Warwick, R. I.
Racing Activity: This association, formed in 1961, holds a national championship as well as local club and fleet races. In addition to being a good racing craft, its design is well suited for day and overnight cruising.

The Finn Monotype (*left*) and the Jollyboat (*right*)

Fireflies sailing windward

Finn Monotype

Association Name: International Finn Class Association
Insignia on Sail: Two wavy lines (see page 45)
Type and Dimensions: Centerboard catboat
Overall length—14 feet, 9 inches Draft—6 inches*
Waterline—14 feet, 1 inch —3 feet**
Beam—4 feet, 8 inches Sail area—114 square feet
Construction Material Allowed: Molded mahogany plywood
Price Range: New, less sails, about $1,100; dacron mainsail, about $150
Principal Builders:
Nautical Corp., P. O. Box 26, Paramus, N. J.
Newport Fiberglass Boats, 825 Production Place, Newport Beach, Calif.
O'Day Corporation, 9 Newbury St., Boston 16, Mass.
Racing Activity: Fleets at Boston and Mass. Institute of Technology, Mass.; Oyster Bay, N. Y.; San Francisco, Calif.; Toronto and Montreal, Canada; New Jersey waters; Australia; Belgium; England; France; West Germany; South and Central America; Italy; Denmark; and Norway. Chosen as the one-man boat in the 1952, 1956 and 1960 Olympiads, the Finn will again serve as the monotype in the 1964 Olympic Games.

Firefly

Association Name: North American Firefly Association
Insignia on Sail: Letter "F"
Type and Dimensions: Centerboard sloop
Overall length—12 feet
Beam—4 feet, 7 inches
Draft—6 inches*
—3 feet, 6 inches**
Sail area—100 square feet
Construction Material Allowed: Plywood
Price Range: New, about $800
Principal Builder: O'Day Corporation, 9 Newbury St., Boston 16, Mass.
Racing Activity: Over 2,000 of this class in the world. In the United States fleets are centered in Connecticut, Maine, Pennsylvania, Southern Cali-

Five-O-Five Class (*left*) and the Flying Scot (*right*)

fornia, Massachusetts and Buffalo, and on the Great South Bay in New York. Numerous fleets give opportunity for interclub racing, while active teams compete for trophies in Canada, Bermuda, Europe and the United States.

Five-O-Five

Association Name: North American 505 Association
Insignia on Sail: Numerals "505"
Type and Dimensions: Centerboard sloop
Overall length—16 feet, 6 inches Draft—6 inches*
Waterline—15 feet, 6 inches 3 feet, 9 inches**
Beam—6 feet, 3 inches Sail area—150 square feet
Construction Material Allowed: Molded mahogany
Price Range: New, less sails, about $1,500; dacron main and jib, about $235
Principal Builders:
Edward K. Hampshire Co., Jackson, N. H.
Nautica Corp., P. O. Box 26, Paramus, N. J.
O'Day Corporation, 9 Newbury St., Boston 16, Mass.
Racing Activity: Fleets throughout the world, and in the United States in Long Island Sound, Texas, Florida and California. This class was given international status by the International Yacht Racing Union in 1956 and is governed through the I.Y.R.U., with the North American 505 Association handling American affairs.

Flying Dutchman

Association Name: United States Flying Dutchman Association (an affiliate of the International Flying Dutchman Class Association)
Annual Dues: $7.50
Insignia on Sail: Letters "FD"
Type and Dimensions: Centerboard sloop
Overall length—19 feet, 10 inches Draft—6 inches*
Waterline—18 feet 3 feet, 8 inches**
Beam—5 feet, 7 inches Sail area—176 square feet
Construction Materials Allowed: Hull materials are not specified by class rules. However, rigid shape and low-weight requirements indicate either molded plywood or fiberglass construction

The Flying Dutchman (*left*) and the Flying Dutchman Junior

Price Range: New, $1,600 to $2,500; used, $1,000 and up; molded plywood hulls available for about $400 and up. No kit boats.
Principal Builders:
Bylsma Boats, Inc., 2151 Chicago Dr., Grand Rapids, Mich.
Clearwater Bay Marine Ways, Inc., 900 N. Osceola Ave., Clearwater, Fla.
P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.
Geveke & Co., Inc., 25 Broadway, New York 4, N. Y.
Gibbs Boat Co., 6580 Morin Grove, Erie, Mich.
Edward K. Hampshire Co., Jackson, N. H.
Henton Construction Corp., 3902 S. Port Ave., Corpus Christi, Texas
Leon F. Irish Co., 4300 Haggerty Rd., Walled Lake, Mich.
National Marine Co., Bridgeway at Pine, Sausalito, Calif.
O'Day Corporation, 9 Newbury St., Boston 16, Mass.
Siddons & Sindle, Inc., Central Ave., Island Heights, N. J.
Van Breems International Corp., Seaview Ave., Stamford, Conn.
Racing Activity: The Flying Dutchman is an Olympic two-man boat. There are about 350 in this country, distributed rather widely. The U.S.F.D.A. has been organized to schedule regattas, enforce class rules, and govern the class in America. A complete season of active racing culminates in the annual North American Championship Regatta.

Flying Junior

Association Name: International Flying Junior Class Association
Insignia on Sail: Letters "FJ"
Type and Dimensions: Centerboard sloop

Overall length—13 feet, 2 inches	Draft—6 inches
Waterline—12 feet, 2 inches	—2 feet, 10 inches
Beam—5 feet	Sail area—100 square feet

Construction Material Allowed: Fiberglass
Price Range: New, about $1,000
Principal Builders:
Advance Sailboat Corp., 108 E. 3rd Ave., Parkville, Mo.
Geveke & Co., Inc., 25 Broadway, New York 4, N. Y.
Henton Construction Corp., 3902 S. Port Ave., Corpus Christi, Texas
Marine Plastic, Inc., 224 Spear St., San Francisco, Calif.
Racing Activity: The Flying Junior has had a very healthy growth

period since its inception in 1956. There are over 1,000 boats in thirteen countries. In the United States new fleets are springing up in all the major yacht racing areas. When it was first introduced, this craft was known as the Flying Dutchman, Jr.

Flying Fifteen

Association Name: United States Flying Fifteen Association
Insignia on Sail: Letters "FF" (see below)
Type and Dimensions: Keel sloop

Overall length—20 feet	Draft—2 feet, 5 inches
Waterline—15 feet	Sail area—152 feet
Beam—5 feet	

Construction Material Allowed: Fiberglass
Price Range: New, about $2,000

Flying Fifteen Class boats

Principal Builder: Geonautics, Inc., 23 Arrow St., Cambridge, Mass.
Racing Activity: This is a very popular racing class in Great Britain and is the class that H.R.H. the Duke of Edinburgh sails. In the United States the class has gained in popularity, especially in New England waters.

Flying Scot

Association Name: Flying Scot Sailing Association
Annual Dues: $5
Insignia on Sail: Letters "FS" (see page 103)
Type and Dimensions: Centerboard sloop
Overall length—19 feet
Waterline—18 feet, 4 inches
Beam—6 feet, 9 inches
Draft—4 inches*
Sail area—190 square feet
Construction Materials Allowed: Fiberglass
Price Range: New, $2,050, less sails; no used or kit boats
Principal Builders:
Customflex, Inc., 3409 South St., Toledo, Ohio
Gordon Douglass Boat Co., Oakland, Maryland
Racing Activity: Numbers over 100 boats, mostly in East and Midwest. Fleets chartered at Cold Spring Harbor, N. Y.; Greenwich, Conn.; Burlington, Vt.; Mansfield, Columbus, Dayton and Cincinnati, Ohio; Detroit and Sturgis, Mich.; and Chicago, Ill.
Other Data: Designed with emphasis on family and club use, rather than on speed.

Gannet

Class Association: The class is strictly one-design and is governed by the United States International 14 Association
Insignia on Sail: See page 109
Type and Dimensions: Centerboard sloop
Overall length—14 feet
Beam—5 feet, 4 inches
Draft—6 inches*
—4 feet, 6 inches**
Sail area—125 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $1,000

Gannet 14's sailing before the wind

Principal Builder: O'Day Corp., 9 Newbury St., Boston 16, Mass.
Racing Activity: This boat is quickly becoming a popular interclub racing craft and is used in many intercollegiate events. By removing the deck of the Gannet it can be converted into a full-fledged International 14.

Geary 18

Association Name and Address: International Flattie Yacht Racing Associaton, P.O. Box 116, Seattle 11, Washington
Annual Dues: Active members, $5; associate members, $1
Insignia on Sail: A sloop (see page 111)
Type and Dimensions: Centerboard sloop

Overall length—18 feet	Draft—8 inches*
Waterline—15 feet, 8 inches	Sail area—157.5 square feet
Beam—5 feet, 3 inches	

Construction Materials Allowed: Plywood and fiberglass

Price Range: New, $775 to $1,100; used, $250 to $750; kits, $375 to $550
Principal Builders: Available from the Class Associaton

Racing Activity: Over 1,000 boats registered. Along West Coast from Vancouver, B. C., to Southern California; fleet in Houston, Texas area. Large international regatta held each year for the Ted Geary Memorial Trophy. Individual boats throughout the world. This class was formerly known as "Flattie," but was renamed the "Geary" in the honor of its designer, Ted Geary.

G. P. Fourteen

Association Name: G. P. Fourteen Class Association
Annual Dues: $2.50
Insignia on Sail: A bell
Type and Dimensions: Centerboard sloop

Overall length—14 feet	Draft—7 inches*
Waterline—13 feet, 6 inches	—3 feet**
Beam—5 feet	Sail area—102 square feet

Construction Material Allowed: Plywood
Price Range: New, $675 to $1,000; used, $500 and up; kits, $300 and up
Principal Builders: All the principal builders are located in Great Britain. The G. P. Fourteen is available in North America from:

J.N.T. Marine Company, 17 Gray Terrace, Bedford, Mass.
John Wright, Jr., 328 W. Queen Lane, Philadelphia 44, Pa.

Racing Activity: In North America: The North American, Canadian, United States and area championship series are held annually. Active fleet racing and interclub series mainly confined at present to Ontario, Quebec, New England, New Jersey and Pennsylvania areas. In addition to those in the United States, Canada and Great Britain, there are active fleets in Aden, Singapore, Tanganyika, Kenya, Australia, Malaya, Borneo, Rhodesia, Uganda, Libya, Nyasaland, Nigeria, Ghana, India and Pakistan. Over 7,000 boats of this class have been built and about 4,600 are members of the association.

Other Data: The name of this class is the Yachting World General Purpose Fourteen-feet Sailing Dinghy Class. The boat was especially designed for amateur construction and is available in kit form. The plans are

Geary 18 Class (*left*) and Hampton Class (*right*)

available from *Yachting World* Magazine, Dorset House, Stamford Street, London, S.E. 1. Price, 2 pounds 10 shillings (about $10).

Hampton

Association Name: Hampton One-Design Class Racing Association
Annual Dues: $5
Insignia on Sail: Arrow superimposed on letter "H"
Type and Dimensions: Centerboard sloop
Overall length—18 feet
Waterline—14 feet
Beam—5 feet, 9 inches
Draft—8 inches*
Sail area—172 square feet
Construction Material Allowed: Wood; hull may be covered with fiberglass
Price Range: New, about $1,500; used, $500 (average); no kit boats available at present.
Principal Builders:
James Richardson, R.F.D., Cambridge, Maryland
Vincent Serio, Warwick, Va.
Racing Activity: Centered on Chesapeake Bay. Approximately 20 boats racing in every regatta. There is a fleet in California, one in Texas and one at Kerr Lake, North Carolina

Harpoon

Association Name: National Harpoon Class Association
Insignia on Sail: A harpoon
Type and Dimensions: Centerboard sloop
Overall length—18 feet
Waterline—17 feet, 2 inches
Beam—6 feet, 3 inches
Sail area—177 square feet
Construction Material Allowed: Wood planking
Principal Builder: Jones Brothers, P. O. Box 635, Saybrook, Conn.
Racing Activity: Centered in New England and on Long Island Sound

Highlander

Association Name: International Highlander Class Association
Annual Dues: Full members, $10; associate members, $5
Insignia on Sail: A Scotch Highlander
Type and Dimensions: Centerboard sloop

Overall length—20 feet
Waterline—19 feet, 3 inches
Beam—6 feet, 8 inches
Draft—8 inches*
Sail area—225 square feet

Construction Material Allowed: Molded Plywood. Composite materials have been approved by the class and are in the experimental stages.

Price Range: New, less sails, about $2,300; used, $1,500 up; kits, about $1,550

Principal Builders:

O. C. Bailey, 521 S. Water St., Corpus Christi, Texas

Douglass & McLeod, Inc., Box 311, Painesville, Ohio

Racing Activity: Class approximately 300 in number, including 25 in France. Active in racing circles. There are 14 registered fleets, Ohio having the largest concentration.

The Highlander (*left*) and the Interlake Class (*right*)

Indian

Association Name and Address: Indian Class Association, Squantum Yacht Club, Quincy, Mass.
Type and Dimensions: Centerboard sloop
Overall length—21 feet, 2 inches
Waterline—16 feet
Beam—6 feet, 4 inches
Draft—1 foot, 6 inches*
3 feet, 6 inches**
Sail area—240 square feet
Construction Material Allowed: Wood planking
Price Range: New, less sails, $1,200 to $1,400
Racing Activity: The Indian is popular in New England and has active fleets on Massachusetts and Narragansett Bays. In addition to being a good racing boat, it is also a fine day-sailer.

Inland Cat

Association Name: Inland Cat Class Racing Association
Annual Dues: $3
Insignia on Sail: Black cat head silhouette with red letter "I" superimposed
Type and Dimensions: Centerboard catboat
Overall length—14 feet, 6 inches
Waterline—11 feet, 4 inches
Beam—5 feet, 4 inches
Draft—3 feet, 3 inches**
Sail area—115 square feet
Construction Material Allowed: Fiberglass
Price Range: New, with sails, $1,200; used, $800 to $1,100
Principal Builder: Maritime Plastics, Inc., 1131 Goshen Ave., Fort Wayne, Ind.
Racing Activity: In the midwest there are fleet races and an annual regatta. There are over 150 boats active.

Inland Lake Scows

Association Name: Inland Lake Yachting Association, Inc.
Annual Dues: No annual dues unless boat is raced in annual regatta
Insignia on Sail: The letter and number of its home yacht club
Type and Dimensions: (According to class)
(CLASS A) Bilgeboard sloop
Overall length—38 feet
Beam—8 to 8½ feet
Draft—5 feet**
Sail area—550 square feet

Construction Material Allowed: Wood
Price Range: New, $5,000 to $6,000

(CLASS C) Bilgeboard catboat
Overall length—20 feet
Beam—6½ feet
Draft—3¼ feet
Sail area—216 square feet
Construction Materials Allowed: Fiberglass, wood or any kind of composition
Price Range: New, $1,500 to $2,000

(CLASS D) Bilgeboard sloop
Overall length—20 feet
Beam—6½ feet
Draft—3¼ feet**
Sail area—251½ square feet
Construction Materials Allowed: Fiberglass, wood or molded plywood
Price Range: New, $1,500 to $2,100

(CLASS E) Bilgeboard sloop
Overall length—28 feet
Beam—6½ to 6¾ feet
Draft—4½ feet**
Sail area—319⅜ square feet
Construction Material Allowed: Wood
Price Range: New, about $3,000

(CLASS M) Bilgeboard sloop
Overall length—16 feet
Beam—5 feet, 7 inches
Draft—2½ feet**
Sail area—150 square feet
Construction Materials Allowed: Wood and molded plywood
Price Range: New, $1,000 to $1,500

(CLASS X—CUB) Centerboard sloop
Overall length—16 feet
Beam—5½ feet
Draft—2½ feet**
Sail area—125 square feet
Construction Materials Allowed: Fiberglass, molded plywood, wood or any kind of composition
Price Range: New, $1,000 to $1,300
Principal Builders:
Bay Boat Company, Sharon, Wisc., (Classes C,E,M,X)
Johnson Boat Works, White Bear Lake, Minn., (Classes A,C,D,E,X)
Melges Boat Works, Zenda, Wisc., (Classes A,C,D,E,M,X)
Oconomowoc Marine Corp., R.R. No. 1, Oconomowoc, Wisc., (Classes C,X)
Stamm Boat Company, Lake Nagawicka, Delafield, Wisc., (Classes C,X)

Racing Activity: Inland Lake scows are the number-one racing craft in the States of Wisconsin and Minnesota. There are weekly local lake races plus an invitational regatta and the Annual ILYA Regatta.
Other Data: The number of boats built (approximately of the various classes is interesting: Class A—2,500; Class C—5,000; Class D—500; Class E—5,500; Class M—500; and Class X—2,000. New boats are being added each year.

Inter-Club

Association Name: Inter-Club Class, no class association as yet
Insignia on Sail: Letters "IC"
Type and Dimensions: Centerboard catboat
Overall length—11 feet, 6 inches Draft—3 feet**
Beam—4 feet, 7 inches Sail area—72 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $600
Principal Builder: O'Day Corporation, Inc., 9 Newbury St., Boston 16, Mass.
Racing Activity: This boat is fast becoming the number-one frostbiting racing craft in the Northeast. It is also used in intercollegiate racing.

Interlake

Association Name: Interlake Sailing Class Association
Annual Dues: Full members $4; associate members $2
Insignia on Sail: Jib and mainsail (see page 113)
Type and Dimensions: Centerboard sloop
Overall length—18 feet Draft—8 inches*
Waterline—15 feet, 3 inches —4 feet, 7 inches**
Beam—6 feet, 3 inches Sail area—175 square feet
Construction Materials Allowed: Wood or fiberglass
Price Range: New, less sails, $1,600; used, from $1,000; kits, $1,450
Principal Builder: Customflex, Inc., 3409 South St., Toledo 9, Ohio
Racing Activity: Class has approximately 400 in the United States plus several fleets in Canada. It is a very active racing class, with its greatest concentration in the Great Lakes region.

Other Data: The Interlake was designed by Francis Swiesguth and first built of wood in 1932 making it one of the oldest one-design class sailboats in America. All boats now manufactured are of fiberglass.

International Decked Sailing Canoe

Assocation Name and Address: American Canoe Association, 400 Eastern St., New Haven, Conn.
Annual Dues: $4
Type and Dimensions: Centerboard sloop
Overall length—17 feet (max.) Beam—3 feet, 7¼ inches (max.)
—16 feet (min.) —3 feet, 1⅜ inches (min.)
Sail area—10 square meters max. (107.64 sq. ft.)
Construction Materials Allowed: None specified
Price Range: New, with sails, about $1,200; used, about $850
Principal Builder: Max Andersson, Vasteras, Sweden
Racing Activity: About 100 boats are sailed in the United States, with major racing activity being off City Island, New York, and in the St. Lawrence River near Gananoque, Ontario, Canada. Racing in international competition is held each year.
Other Data: This is one of the fastest single-man sailing craft. However, this class is not a one-design boat, but must fit into stated requirements.

International One-Design

Association Name: International One-Design Class Association
Annual Dues: Various in different fleets
Insignia on Sail: Letter "I" superimposed on letter "C"
Type and Dimensions: Keel sloop
Overall length—33 feet, 5 inches Draft—5 feet, 4 inches
Waterline—21 feet, 5 inches Sail area—433 square feet
Beam—6 feet, 10 inches
Construction Material Allowed: Wood
Price Range: New, with sails, about $9,500; used, $4,000 to $6,000
Principal Builder: Bjarne Aas, Fredrikstad, Norway
Racing Activity: Eight fleets located on Long Island Sound, others in Marblehead, Northeast Harbor, San Francisco, Bermuda, England, Marseilles, France and Outer and Inner Norway; representing 130 regis-

An International Decked Sailing Canoe (*left*) and the Seminole Class

tered boats. World championship held each year in addition to team racing and local activity.

International 14

Association Name: United States International 14 Association
Annual Dues: Boat owners, $4; crew members, $3
Insignia on Sail: Number "15" over a bar.
Type and Dimensions: Centerboard sloop
Overall length—14 feet
Waterline—14 feet
Beam—4 feet, 8 inches (min.); 5 feet 6 inches (max.)
Draft—4 feet, 6 inches**
Sail area—175 square feet
Construction Materials Allowed: Wood or fiberglass
Price Range: New, $1,100 to $1,600 plus sails, about $260; used, $760 up; kits, about $800
Principal Builders:
O'Day Corporation, Inc., 9 Newbury St., Boston 16, Mass.
W. D. Schock Co., 18141 Greenville Rd., Santa Ana, Calif.
Racing Activity: Very active racing on East and West Coasts, Canada, England and Bermuda. Many interclub, regional meets plus National and World championships.

International 110

Association Name: International 110 Class Yacht Racing Association
Annual Dues: $5
Insignia on Sail: Numerals "110"
Type and Dimensions: Keel sloop
Overall length—24 feet
Waterline—18 feet
Beam—4 feet, 2 inches
Draft—2 feet, 10 inches
Sail area—155 square feet with large genoa
Construction Material Allowed: Hull planked with 3/8-inch marine plywood. Plywood hull may be covered with fiberglass
Price Range: New, about $1,650, less sails; suit of sails (main, genoa, spinnaker), about $325; kits, $1,100
Principal Builders:
Graves Yacht Yard, Inc., 89 Front St., Marblehead, Mass.
Jesiek Bros., Macatawa Park, Holland, Michigan

The International 110 (*left*) and the International 210

Racing Activity: Thirty-one active fleets in the United States. At present, numbers total about 2,000. Each fleet usually holds its own championship series during its sailing season. An International Championship regatta is held annually alternating in location between districts.

International 210

Association Name: International 210 Association
Annual Dues: $5
Insignia on Sail: Numerals "210"
Type and Dimensions: Keel sloop
Overall length—29 feet, 6 inches
Waterline—26 feet
Beam—5 feet, 10 inches
Draft—3 feet, 10 inches
Sail area—210 square feet
Construction Material Allowed: ⅜-inch marine plywood
Price Range: New, about $3,800; used, $1,200 to $3,000. No kit boats.

Principal Builders:
Beacon Boat Co., 1691 S. Shore Drive, Holland, Mich.
Graves Yacht Yards, Inc., 89 Front St., Marblehead, Mass.
Racing Activity: Fleets in Marblehead, Manchester, Gloucester, Cohasset, Boston Bay and Falmouth—all in Massachusetts; Western Long Island Sound; Milford, Conn.; Hawaii; Muskegon and Kalamazoo, Michigan; San Francisco, Calif. Total boats built about 300; total active racing, 200.

Jet 14

Association Name: Jet 14 Class Association
Annual Dues: $5
Insignia on Sail: A jet airplane
Type and Dimensions: Centerboard sloop
Overall length—14 feet
Waterline—13 feet, 1½ inches
Beam—4 feet, 8 inches
Draft—4 feet, 2 inches**
Sail area—113 square feet
Construction Materials Allowed: Molded plywood and fiberglass
Price Range: New, less sails, about $850; few used boats are on the market and those which are available generally sell for around $650; kits, various prices.
Principal Builders:
Anchor Line Marine, 2920 W. 11th Ave., Eugene, Ore.
Halifax Marina, 912 Halifax Dr., Port Orange, Fla.
R. Hamann & Sons, R.F.D., Carmel, N. Y.
Leon F. Irish Co., 4300 Haggerty Rd., Walled Lake, Mich.
Elmer C. Kenyon, Wales, Mass.
Olsen Boat Works, Inc., 70 Commonwealth Ave., Red Bank, N. J.
Siddons & Sindle, Inc., Central Ave., Island Heights, N. J.
Doug Westin's Boat Shop, River Road, Sayville, N. Y.
John Wright, Jr., 328 W. Queen Lane, Philadelphia 44, Pa.
Racing Activity: Class numbers about 500 boats. Fleets are located in East Coast areas primarily. Massachusetts, New York, Connecticut, New Jersey, Maryland, Washington, D. C., Ohio, Virginia, North Carolina, Florida, Michigan, Louisiana, Texas and Colorado have fleets.

Jollyboat

Association Name: North American Jolly Boat Association

Insignia on Sail: Letter "J"
Type and Dimensions: Centerboard sloop
Overall length—18 feet — Draft—8 inches*
Waterline—17 feet, 6 inches — —4 feet, 8 inches**
Beam—5 feet, 3½ inches — Sail area—160 square feet
Construction Material Allowed: Plywood
Price Range: New, about $1,500
Principal Builder: O'Day Corporation, Inc., 9 Newbury St., Boston 16, Mass.
Racing Activity: About 250 sail numbers have been issued in England, Canada and the United States.

Lido 14

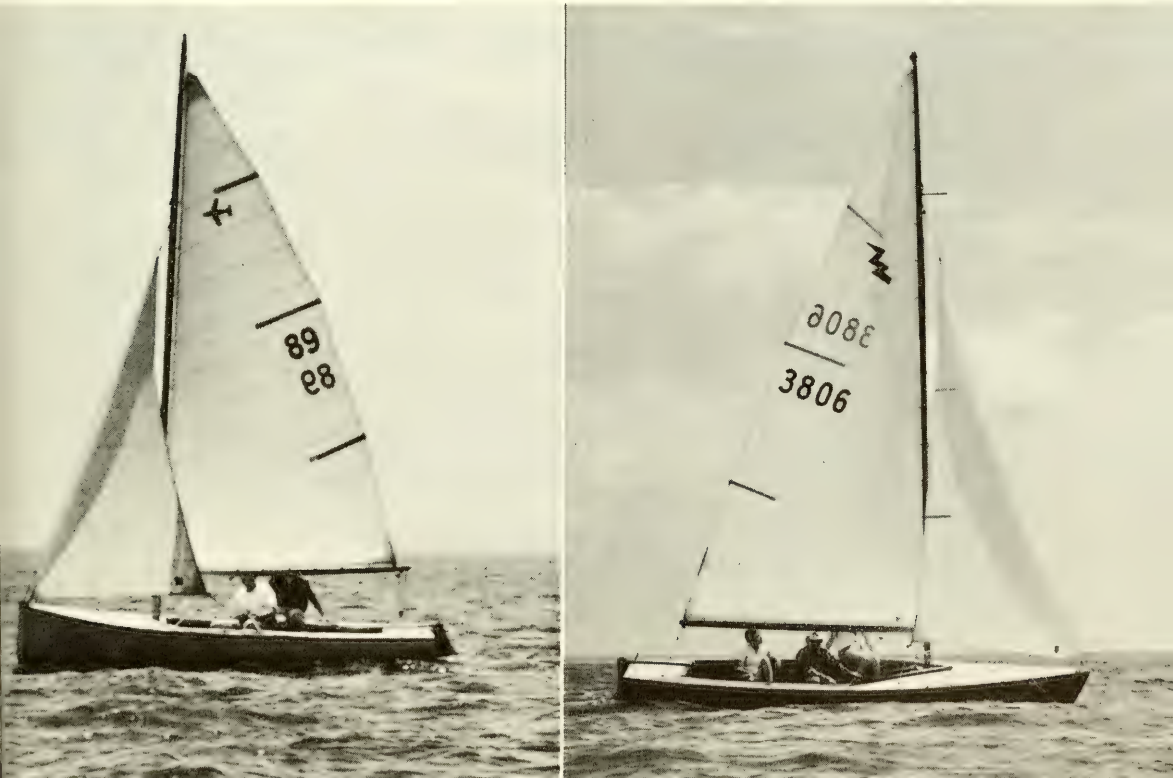
Association Name: Lido 14 Class Association
Insignia on Sail: Script "L14"
Type and Dimensions: Centerboard sloop
Overall length—14 feet — Draft—5 inches*
Waterline—13 feet, 6 inches — —4 feet, 3 inches**
Beam—6 feet — Sail area—111 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $1,100
Principal Builders:
Hugh Doherty's King Harbor Boats, 901 Pier Ave., Hermosa Beach, Calif.
W. D. Schock Co., 18141 Greenville Rd., Santa Ana, Calif.
Racing Activity: Extremely active schedule on the West Coast. Association holds a national championship.

Lightning

Association Name: International Lightning Class Association
Annual Dues: $4 per year for skipper; $2 for each crewman—or $8 total per boat
Insignia on Sail: Lightning streak
Type and Dimensions: Centerboard sloop
Overall length—19 feet — Draft—5 feet**
Waterline—15 feet, 3 inches — Sail area—177 square feet
Beam—6 feet, 6¼ inches

Construction Materials Allowed: Wood, wood covered with resin and synthetic cloth and fiberglass
Price Range: New, about $2,300, plus sails, about $200; used, $400 to $3,000
Principal Builders:
Beacon Boat Co., Box 714, Holland, Mich.
General Boats Corp., 32 W. 46th St., New York 36, N. Y.
Gerber Boat Works, 689 Minneford Ave., Bronx 64, N. Y.
Graves Yacht Yards, P. O. Box 36, Marblehead, Mass.
Hoernke Yacht & Shipbuilding Corp., Jones Island, Milwaukee 7, Wisc.
Imperial Marine Corp., Phoebus Station, Hampton, Va.
Leon F. Irish Co., 4300 Haggerty Rd., Walled Lake, Mich.
Lippincott Boat Works, Riverton, N. J.
Nickels and Holman, 2426 S. Long Lake Rd., Fenton, Mich.
Olsen Boat Works, Inc., 70 Commonwealth Ave., Red Bank, N. J.
Richard Price Yacht Yard, Fort Sewall, Marblehead, Mass.

The Jet (*left*) and the Lightning (*right*)



Saybrook Yacht Yard, Box 322, Old Lyme, Conn.
Seaman Seacraft Co., Inc., Herman Ave., Locust Valley, N. Y.
Sportship Boat Co., 1020 Park Ave., S. Milwaukee, Wisc.
A. R. True, Inc., 10 Morrill St., Amesbury, Mass.
Varalyay Boat Works, 1810 W. 166th St., Gardena, Calif.
Racing Activity: Annual elimination races winner going to international regatta held each year in late August or early September. Total of 313 fleets throughout the world with over 6,000 active boats.

L-16

Association Name: International L-16 Class Association
Insignia on Sail: Letter and numeral "L16"
Type and Dimensions: Keel sloop
Overall length—26 feet — Draft—4 feet
Waterline—16 feet, 4 inches — Sail area—207 square feet
Beam—5 feet, 9 inches
Construction Material Allowed: Fiberglass
Price Range: New, $5,590 less sails; used, prices vary
Principal Builders:
American Boatbuilding Corp., Warwick, R. I.
Luders Marine Construction Co., South St., Stamford, Conn.
Racing Activity: On East and West Coasts, New Orleans, Chicago and Bermuda. About 225 boats have been built, and most are very active in racing.

Melody

Association Name: Melody Association
Annual Dues: $2
Insignia on Sail: Musical one-eighth note.
Type and Dimensions: Centerboard catboat
Overall length—10 feet — Draft—2 feet, 2 inches**
Waterline—9 feet — Sail area—55 square feet
Beam—4 feet, 3 inches
Construction Material Allowed: Plywood
Price Range: New, about $400; used, $250 to $325

Principal Builders:
Anchor Line Marine Co., 2920 W. 11th Ave., Eugene, Ore.
Basin Boatcraft Co., 601 Embarcadero, Oakland 6, Calif.
Racing Activity: Almost 200 on the West Coast—most of them in the San Francisco Bay area

Mercury
Association Name: Cape Cod Mercury Association
Annual Dues: $2
Insignia on Sail: Letters "CC" with wing
Type and Dimensions: Centerboard or keel sloop
Overall length—15 feet
Waterline—13 feet, 10 inches
Beam—5 feet, 5 inches
Draft—3 feet, 3 inches**
—2 feet, 4 inches with keel
Sail area—119 square feet
Construction Material Allowed: Fiberglass
Price Range: New, with dacron sails, about $1,225
Principal Builder: Cape Cod Shipbuilding Co., Wareham, Mass.
Racing Activity: In Maine—Bar Harbor, Blue Hill, Sorrento and Northeast Harbor; in Massachusetts—Duxbury, Cohasset, Hingham and Manauhant; in Rhode Island—Bristol, Sounderstown, Naval Station Sailing Squadron; and in Connecticut—Greenwich Beach Club and Fenwick Yacht Club.

Mercury Class
Association Name: Mercury Class Yacht Racing Association
Annual Dues: $2
Insignia on Sail: Encircled letter "M" with wing
Type and Dimensions: Keel sloop
Overall length—18 feet
Waterline—13 feet
Beam—5 feet, 4 inches
Draft—3 feet
Sail area—156 square feet
Construction Materials Allowed: Plywood or fiberglass
Price Range: New, about $1,900; used, $1,000 to $1,500; kits start as low as $225
Principal Builder: Nunes Boat Works, 315 Main St., Sausalito, Calif.
Racing Activity: There are over 700 Mercuries in the class. Once a San

The Mobjack (*left*) and International 14's under sail (*right*)

Francisco Bay one-design, it now has fleets in California, Southern California, the Northwest and Hawaii. In Northern California the Mercuries participate in the SPRA and SPYRA races and in Southern California in the SCYA regattas. Annual championship races are held at different places each year on the West Coast, sponsored by the Mercury Class Boat Racing Association.

Mobjack

Association Name: International Mobjack Association
Annual Dues: Full members, $10; associate members, $5
Insignia on Sail: British "tar" or "jack" superimposed on the letter "M" (see above)
Type and Dimensions: Centerboard sloop

Overall length—17 feet, 2 inches	Draft—4 inches*
Waterline—16 feet, 9 inches	Sail area—180 square feet

Beam—6 feet, 6 inches
Construction Material Allowed: Fiberglass
Price Range: New, $1,500 to $2,000
Principal Builder: East Coast Boats, P. O. Box 117, Oyster Bay, N. Y.
Racing Activity: The class was started in the fall of 1958. National championship initiated in 1959. Over 100 Mobjacks are in use, with the largest number concentrated in Lower Chesapeake Bay.

Moth

Association Name: International Moth Class Association
Annual Dues: $1
Insignia on Sail: Letter "M" within a circle
Type and Dimensions: Centerboard sloop

Overall length—11 feet	Draft—5 inches*
Waterline—10 feet, 9 inches	Sail area—72 square feet

Beam—4 feet, 7 inches
Construction Material Allowed: No limit. (The Moth Class is not a strict one-design. The boat may be developed by individual owners, with only minimum restrictions.)
Price Range: New, with sails, $500 to $750; used, $100 up; kits, $250 up
Principal Builders:
Francis L. Abbot, 200 West Ave., Ocean City, N. J.
Challenger Marine, 13301 Biscayne Bay, N. Miami, Fla.
P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.
Nautica Corp., P. O. Box 26, Paramus, N. J.
Old Greenwich Boat Co., 46 John St., Stamford, Conn.
Surfliner Corp., Lake Wales, Fla.
John Wright, Jr., 308 W. Queen Lane, Philadelphia 44, Pa.
Racing Activity: Thirty-eight fleets in the United States (another 20 without charter). Over 4,000 boats are active in the United States and throughout the world.

Naples Sabot

Association Name: Naples Sabot One-Design Association
Annual Dues: $2
Insignia on Sail: Letter "N" within a Dutch wooden shoe

Type and Dimensions: Catboat with leeboard
Overall length—7 feet, 11 inches Draft—5 inches*
Waterline—5 feet, 9 niches Sail area—38 square feet
Beam—3 feet, 10 inches
Construction Materials Allowed: Plywood or fiberglass
Price Range: New, about $320; used, $150 to $250; kits $150 to $200
Principal Builders:
Apache Boat Works, San Diego, Calif.
Glassform Industries, Long Beach, Calif.
Mastercraft, North Hollywood, Calif.
W. D. Schock Co., 18141 Greenville Rd., Santa Ana, Calif.
Racing Activity: Quite active in Southern California all year around, especially in Alamitos Bay, Mission Bay and San Diego Bay. The Balboa and Newport areas are very active in summer months, while in Northern California to British Columbia they are raced mostly in the winter "frostbite" season from November through March. Over 2,600 of these boats have been made and the majority are raced regularly. Often referred to as the "Sabot" class.

National One-Design

Association Name: National One-Design Racing Association
Annual Dues: Owner and boat $5; crew member $2; associate $2
Insignia on Sail: Letter "N" within a circle
Type and Dimensions: Centerboard sloop
Overall length—17 feet Draft—3 feet, 6 inches**
Waterline—10 feet, 6 inches Sail area—137 square feet
Beam—5 feet, 8 inches
Construction Materials Allowed: Fiberglass, wood planking and plywood
Price Range: New, $1,000 to $1,300; used, $350 to $1,200; kits about $650
Principal Builders:
Peter Geis, Severna Park, Maryland
Ray Greene & Co., 504 S. Byrne Rd., Toledo 9, Ohio
Olympics Plastics Co., Seattle, Wash.
Racing Activity: Fleets on West Coast, East Coast, Middle West and Oklahoma hold seasonal racing. Area championship regattas held each summer (Eastern, Western and Great Lakes), and a national champion-

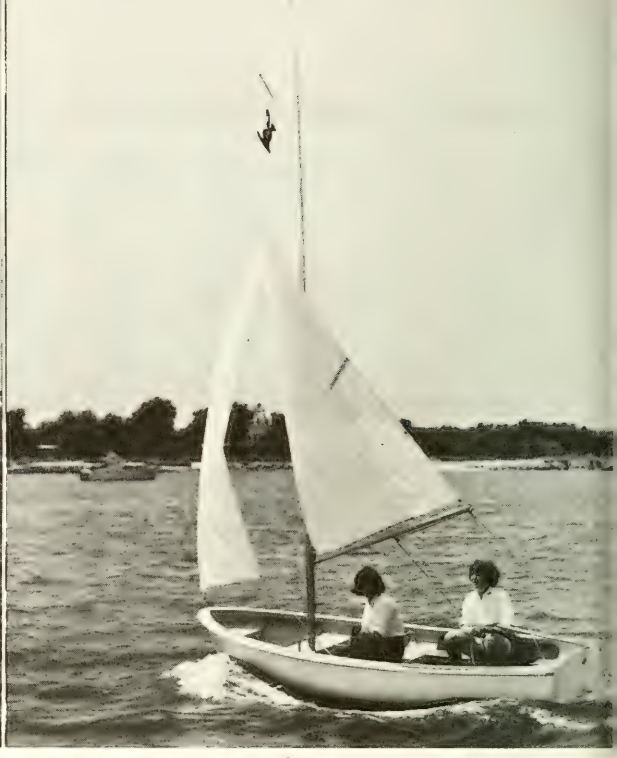
ship regatta held each year. About 750 boats are registered; many more never have been registered.

Nipper

Association Name: National Nipper Association
Annual Dues: $3
Insignia on Sail: The word "NIP"
Type and Dimensions: Centerboard catboat
Overall length—12 feet — Draft—2 feet, 8 inches**
Waterline—11 feet — Sail Area—100 square feet
Beam—5 feet, 2 inches
Construction Materials Allowed: Plywood or fiberglass
Price Range: New, with sails, from $530 to $800; used, $100 to $400
Principal Builder: Ray Greene & Co., 508 S. Byrne Rd., Toledo 9, Ohio
Racing Activity: Fleets of these boats are to be found at Detroit, Glen Lake, Clarks Lake and Devils Lake in Michigan; Buckeye Lake and Toledo in Ohio; and numerous other locations in the Midwest. Over 2,500 are now in use.

Optimist

Association Name and Address: Optimist Class Pram International Racing Association, Railway Exchange Building, St. Louis 1, Missouri
Annual Dues: $1 per fleet
Type and Dimensions: Centerboard catboat
Overall length—7 feet, 10 inches — Draft—4 inches*
Beam—3 feet, 8 inches — Sail area—35 square feet
Construction Material Allowed: Plywood
Price Range: New, $100 to $210; used, $50 to $75.
Principal Builders:
Clearwater Bay Marine Ways, 900 N. Osceola Ave., Clearwater Beach, Fla.
P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.
Graham-Prams, 8365 Leona St., Forestville, Washington 28, D. C.
Halifax Marina, 912 Halifax Dr., Port Orange, Fla.
Racing Activity: This is a one-design pram designed especially for junior sailors. There are 1,500 or more sailing on the bays and lakes of Florida. Also fleets of 30 or more boats are racing in some 33 other localities.



The Pelican (*left*) and the Little Bear (*right*)

The Raven (*left*) and the Rhodes Bantam (*right*)

Pelican

Association Name: Pelican Sailing Dinghy Association
Annual Dues: $4
Insignia on Sail: Pelican in flight
Type and Dimensions: Centerboard catboat
Overall length—11 feet, 2 inches Draft—6 inches*
Waterline—11 feet 2 feet, 6 inches**
Beam—4 feet, 7 inches Sail area—65 square feet
Construction Material Allowed: Plywood
Price Range: New, $500; used, $250 to $450; kits available
Principal Builder: Glander Boats, Inc., 5960 S.W. 78th St., South Miami, Fla.
Racing Activity: Over 200 racing actively in Florida waters, plus other fleets in Texas and Michigan. National Championship held each year.

Penguin

Association Name and Address: International Penguin Class Dinghy Association, 1217 Fourth Rd., Baltimore 20, Maryland
Annual Dues: $4
Insignia on Sail: Penguin
Type and Dimensions: Centerboard catboat
Overall length—11 feet, 6 inches Draft—4 inches*
Waterline—11 feet, 4 inches —3 feet, 6 inches**
Beam—4 feet, 8 inches Sail area—72 square feet
Construction Materials Allowed: Plywood and fiberglass
Price Range: New, $500 to $600; used, $200 to $500; kits, about $275
Principal Builders:
David Beaton & Sons, Mantoloking, N. J.
Customflex, Inc., 3409 South St., Toledo, Ohio
P. Evanson Boat Co., 4110 Freeland Ave., Philadelphia 28, Pa.
Gerber Boat Works, 689 Minneford Ave., Bronx 64, N. Y.
Halifax Marina, 912 Halifax Dr., Port Orange, Fla.
Holden Laminated Plastic Co., 913 West St., Annapolis, Md.
Imperial Marine Corp., Phoebus Station, Hampton, Va.
Leon F. Irish Co., 4300 Haggerty Road, Walled Lake, Mich.
Pacific Northwest Boat Works, Airport Way and Oregon St., Seattle 8, Wash.

Roberts Industries, Inc., 39 Post Rd., Branford, Conn.
Varalyay Boat Works, 1810 W. 166th St., Gardena, Calif.
John Wright, Jr., 308 W. Queen Lane, Philadelphia, Pa.
Racing Activity: Thousands of boats of this class around the world. National championship held each year.

Raven

Associaton Name and Address: Raven Class Corporation, 6801 Twelfth St., Detroit 8, Michigan
Annual Dues: Active members, $6; associate members, $4
Insignia on Sail: A raven
Type and Dimensions: Centerboard sloop
Overall length—24 feet, 3 inches — Draft—5 feet, 4 inches**
Waterline—21, 7 inches — Sail area—300 square feet
Beam—7 feet
Construction Materials Allowed: Fiberglass or plywood
Price Range: New fiberglass, with dacron sails, about $3,600; used, prices vary. No kit boats.
Principal Builder: Cape Cod Shipbuilding Co., Wareham, Mass.
Racing Activity: Membership of about 300 spread from coast to coast. Larger and more active fleets in Marblehead, Mass.; Oyster Bay, N. Y.; Cleveland, Ohio; Detroit, Mich.; Miami, Fla.; and Buckeye Lake, La.

Rebel

Association Name and Address: National Rebel Association, 3008 Ravenwood Blvd., Toledo 14, Ohio
Annual Dues: Regular members, $3; associate members, $2.
Insignia on Sail: Letter "R" or special-shaped "R" as shown on page 000
Type and Dimensions: Centerboard sloop
Overall length—16 feet — Draft—6 inches*
Waterline—14 feet, 9 inches — —3 feet**
Beam—6 feet, 6 inches — Sail area—166 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $1,330, plus sails, which vary between $190 to $240; used, with sails, from $700 to $1,300. No kit boats.
Principal Builder: Ray Greene & Co., 508 S. Byrne Rd., Toledo 9, Ohio

Racing Activity: Founded in 1950, this association has fleets scattered from the Bay of Fundy to the South Pacific and the Caribbean by way of the Midwest. Starting with a few boats in the Toledo and neighboring lakes area, the class has grown to over 1,500.

Rhodes Bantam

Association Name: Rhodes Bantam Class Association
Annual Dues: $3
Insignia on Sail: Letters "RB" with a bar through them
Type and Dimensions: Centerboard sloop

Overall length—14 feet	Draft—5½ inches*
Waterline—13 feet, 11 inches	4 feet, 2 inches**
Beam—5 feet, 6¼ inches	Sail area—120 square feet

Construction Materials Allowed: Wood and fiberglass. Fiberglass covering is also permitted
Price Range: New, with sails, $520 to $800; used, $300 to $500
Principal Builders:
Gibbs Boat Co., 6580 Morin Grove, Erie, Mich.
Triangle Marine Co., 5395 St. Paul Blvd., Rochester 17, N. Y.
Wright-Built Boat Co., Main Hwy., Dundee, N. Y.
Racing Activity: Over 800 Bantams built to date. Some 30 or 40 boats have been built abroad, but great bulk is concentrated in Northeastern and Southeastern United States. Greatest center of activity appears to be along the line of the Great Lakes from Detroit to Montreal.

Rhodes 18

Association Name: International Rhodes 18 Racing Association
Insignia on Sail: Letter "C" encircling letter "R"
Type and Dimensions: Centerboard or keel sloop

Overall length—18 feet	Draft—4 feet**
Waterline—16 feet	—2 feet, 8 inches with keel
Beam—6 feet, 3 inches	Sail area—165 square feet

Construction Materials Allowed: Fiberglass or wood. There have been over 500 fiberglass boats built in addition to the wood boats, equally divided between keel and centerboard, making a total fleet of over 800 Rhodes 18's.

Rhodes 18 Class (*left*) and Rhodes 19 Class (*right*)

Price Range: New, fiberglass, with dacron sails: keel, about $1,850; centerboard, $1,950
Principal Builder: Cape Cod Shipbuilding Co., Wareham, Mass.
Racing Activity: Active fleet of about 300 boats, mostly in Long Island Sound. Other boats widely distributed.

Rhodes 19

Association Name: Rhodes 19 Class Association
Annual Dues: $3
Insignia on Sail: The letter and numeral "R19" arranged as shown above
Type and Dimensions: Centerboard or keel sloop

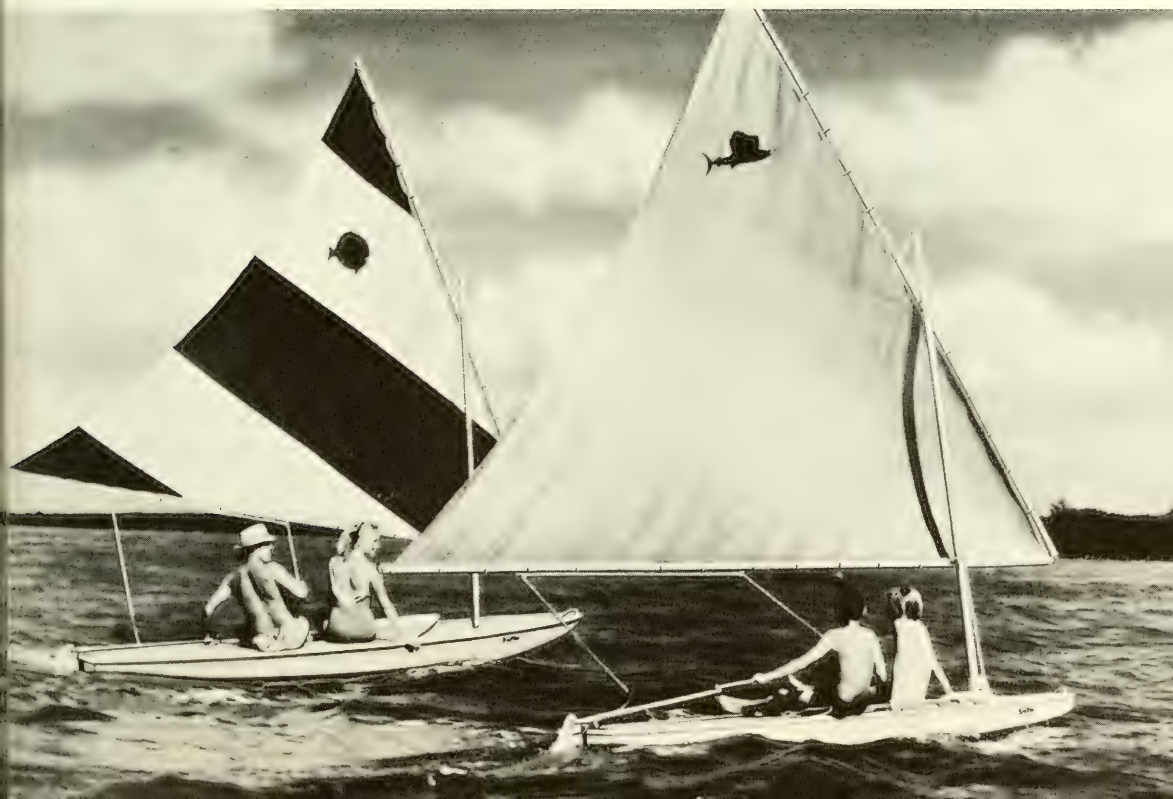
Overall length—19 feet, 2½ inches	Draft—9 inches*
Beam—6 feet, 9 inches	—4 feet**
Sail area—176 square feet	—3 feet, 9 inches (keel boat)

Construction Material Allowed: Fiberglass
Price Range: New, less sails, $2,300; used, $2,000 to $2,400 depending on equipment and age of boat.
Principal Builder: The O'Day Corporation, 9 Newbury St., Boston 16, Mass.
Racing Activity: Of the over 600 boats built, some 250 are actively raced. Fleets are located on Long Island Sound, New Orleans, Mobile Bay, Detroit, Edgartown and San Francisco.

Sailfish and Sunfish

Association Name: Sailfish-Sunfish Association
Annual Dues: None; however, there is an initial $3 registration fee
Insignia on Sail: See below
Type: Centerboard Catboat
Dimensions: (Standard Sailfish Class)
Overall length—11 feet, 7½ inches Draft—2 feet**

Sunfish (*left*) and Sailfish (*right*)



Beam—2 feet, 7½ inches Sail area—65 square feet
Dimensions: (Super Sailfish Class)
Overall length—13 feet, 7 inches Draft—2 feet**
Beam—2 feet, 11½ inches Sail area—75 square feet
Dimensions: (Sunfish Class)
Overall length—13 feet, 10 inches Draft—3 feet**
Beam—4 feet, ½ inch Sail area—75 square feet
Construction Materials Allowed: Super Sailfish and Sunfish—fiberglass and wood; Standard Sailfish—wood only.
Price Range: New, about $300 (Standard Sailfish); $370 (Super Sailfish); $450 (Sunfish). Used, from $150 up; kits also available.
Principal Builder: Alcort, Inc., P. O. Box 1345, Waterbury, Conn.
Racing Activity: There are local, national and international fleets all over the world, and local and open regattas as well as national and international championships in each class. The Super Sailfish and Sunfish Classes are usually raced with the skipper and one crew member, while the Standard Sailfish is raced with only the skipper. All three classes are strict one-designers—only registered boats with equipment as offered by the manufacturer allowed to racing events controlled by the association.
Other Data: There are over 10,000 Super Sailfish, 5,000 Standard Sailfish and 5,000 Sunfish built at the present time. These classes increase at a rate of some 2,500 a year.

Sea Shell

Association Name: Sea Shell Class Assocation
Insignia on Sail: Letters "SS"
Type and Dimensions: Centerboard catboat
Overall length—7 feet, 11 inches Draft—2 feet, 2 inches**
Waterline—6 feet, 11 inches Sail area—41 square feet
Beam—4 feet
Construction Material Allowed: Fir plywood
Price Range: New, about $250; used, $100 to $150. Available in kits and completed unpainted boats.
Principal Builder: Roberts Industries, Inc., Post Rd., Branford, Conn.
Racing Activity: Although this class was only organized nationally in 1961, some 300 owners of the 3,000 boats built have joined. At present this class

The Sea Shell (*left*) and the Vixen

is raced mainly at local clubs in Connecticut, Long Island Sound, New Jersey and California. (On the West Coast, this class is often referred to as the "Santa Barbara Sea Shell Class.")

Seminole

Association Name: Seminole Sailing Sloop Association
Annual Dues: $4
Insignia on Sail: Thunderbird, wings folded
Type and Dimensions: Centerboard sloop
Overall length—13 feet, 9 inches Draft—6 inches*
Waterline—13 feet, 6 inches —2 feet, 6 inches**
Beam—4 feet, 7 inches Sail area—72 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $915 with sails

Principal Builder: Glander Boats, Inc., 5960 S.W. 78th St., South Miami 43, Fla.
Racing Activity: At present most of the racing in this class is done in Florida waters.

Shamrock

Association Name: Shamrock Class Association
Annual Dues: $1
Insignia on Sail: Green Irish Shamrock
Type and Dimensions: Centerboard catboat
Overall length—11 feet, 7 inches Draft—3 feet, 2 inches**
Waterline—11 feet, 4½ inches Sail area—72 square feet
Beam—4 feet, 7 inches
Construction Material Allowed: Plywood. Fiberglass hulls are now being tested and will receive approval in the near future.
Price Range: New, about $650; used, $250 and up; kits also available
Principal Builder: William B. Nichols Boat Works, 80 Jack London Square, Oakland, Calif.
Racing Activity: This is a West Coast class and is primarily raced in Belvedere Lagoon—San Francisco Bay area.

Snipe

Association Name and Address: Snipe Class International Racing Association, 655 Weber Ave., Akron 3, Ohio
Annual Dues: Boat owners, $5
Insignia on Sail: Flying snipe
Type and Dimensions: Centerboard sloop
Overall length—15 feet, 6 inches Draft—6 inches*
Waterline—13 feet Sail area—105 square feet
Beam—5 feet
Construction Materials Allowed: Wood planking, plywood and fiberglass hulls allowed. Wood hulls may be covered with fiberglass cloth to bring weight up to minimum, if necessary.
Price Range: Fiberglass hulls, with sails, from $950 to $1,200: plywood with fiberglass covering about the same. A wood hull, about $1,000. Home-built boats, about $600 without sails; kits about $200. Synthetic sails from $140 to $175.

Principal Builders:
Clearwater Bay Marine Ways, Inc., 900 N. Osceola Ave., Clearwater, Fla.
Duffy & Roberts, Inc., 1810 S. Orchard Knobb, Chattanooga, Tenn.
Emmons, Inc., Rt. 1, Central Square, N. Y.
Gerber Boat Works, 689 Minneford Ave., Bronx 64, N. Y.
Grampian Marine Ltd., Oakville, Ont., Canada
Ray Greene & Co., 508 S. Byrne Rd., Toledo 9, Ohio
Heckel Plastic Products, 6318 Guilford Ave., Indianapolis, Ind.
Imperial Marine Corp., Phoebus Sta., Hampton, Va.
Leon F. Irish Co., 4300 Haggerty Rd., Walled Lake, Mich.
Kroeger Kraft, 2829 Bird Ave., Miami 33, Fla.
Lofland Boat Co., 3417 Arkansas Ave., Wichita, Kan.
Oconomowoc Marine Corp., Oconomowoc, Wis.
Stamm Boat Co., Box 25, Delafield, Wis.
Varalyay Boat Works, 1810 W. 166th St., Gardena, Calif.
Racing Activity: This class is the largest and one of the most active organizations of owners of racing sailboats. About 13,500 numbers have been issued since 1931. About 4,000 boats active in racing in the United States. There are 476 fleets in 28 countries. About 650 new boats registered each year. It is one of class boats sailed in the Pan-American Games.
Other Data: The hull is really "a little boat," and not a light eggshell which skims over the top of the water. It is a seaworthy little craft which has been proven in all kinds of water, from coastal to inland lakes and rivers. Its popularity is increasing every year, especially with the availability of fiberglass hulls.

Southeaster

Association Name and Address: Southeaster Class International Racing Association, 7400 S.W. 64th Court, South Miami, Fla.
Annual Dues: $5
Insignia on Sail: Southeast Storming Flags
Type and Dimensions: Centerboard sloop

Overall length—16 feet	Draft—4 inches*
Waterline—14 feet	—3 feet**
	Sail area—117 square feet

Construction Materials Allowed: Fiberglass or plywood

Price Range: New, about $700; used, depending on condition of sails and hull, $400 to $700
Principal Builders: Most boats are built by their owners or from kits. Names of kit dealers, as well as the plans (the latter cost $10) can be obtained from the class secretary.
Racing Activity: Approximately 500 boats have been built, with the majority sailing in Florida waters. Series races are held all year in this State except when they interfere with major winter regattas and the Florida State Championship Races.

Star

Association Name and Address: International Star Class Yacht Association, 51 East 42nd Street, New York 17, N. Y.
Annual Dues: Active, $7.75; associate, $4; and isolated, $3
Insignia on Sail: Star
Type and Dimensions: Keel sloop

Overall length—22 feet, 8½ inches	Draft—3 feet, 4 inches
Waterline—15 feet, 6 inches	Sail area—280 square feet
Beam—5 feet, 8¼ inches	

Construction Material Allowed: Wood, planked only
Price Range: New, about $4,000
Principal Bulders: A list of approximately 400 builders appears in the association's yearbook
Racing Activity: This racing association is the oldest and most truly international class in the world. Founded in 1911, it has almost 200 fleets (about 83 fleets in the United States and about 113 scattered in the world) in almost every country on five continents. About 4,000 boats are numbered at the present. It is raced both in the Olympic and Pan-American games.

Sun Boat

Association Name: Sun Boat Association
Insignia on Sail: Sun with rays extending
Type and Dimensions: Centerboard sloop

Overall length—15 feet, 3 inches	Draft—2 feet, 6 inches**
Beam—5 feet, ½ inch	Sail area—122 square feet

Construction Material Allowed: Plywood
Price Range: New, about $800
Principal Builder: Easom Boat Works, Gate No. 1, Marinship, Sausalito, Calif.
Racing Activity: This is a "hot" racing class on the West Coast, especially in the Belvedere Lagoon—San Francisco Bay area.

Super Satellite

Association Name: Super Satellite Association
Annual Dues: $2
Insignia on Sail: Four-pointed satellite
Type and Dimensions: Centerboard sloop
Overall length—14 feet
Waterline—12 feet, 6 inches
Beam—6 feet
Draft—3 feet**
Sail area—130 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $900
Principal Builder: Henry R. McCune, 8428 S. Fernando Rd., Sun Valley, Calif.
Racing Activity: Over 300 boats have been built in this class and the majority of them race in the California area.

Teal

Association Name: Teal Association
Insignia on Sail: Black duck superimposed on red letter "T"
Type and Dimensions: Centerboard sloop
Overall length—14 feet, 5 inches
Waterline—14 feet, 5 inches
Beam—5 feet
Draft—6 inches*
—2 feet, 6 inches
Sail area—122 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $1,200; used, from $1,000 to $1,200
Principal Builder: Anchor Reinforced Plastics, Inc., 23440 Rosewood, Oak Park, Mich.
Racing Activity: The design of this boat is the fiberglass version of Henrick Bulthuise's twenty-year-old design which made day-sailing popular in the Netherlands. This is the fastest growing class boat in the

Detroit area and in several other Great Lakes areas. Fleets are being formed in this region and monthly Teal regattas in the Detroit area.

Tech Dinghy

Association Name: Tech Dinghy Association
Insignia on Sail: Letter "T"
Type and Dimensions: Centerboard catboat
Overall length—12 feet Draft—4 inches*
Beam—5 feet Sail area—72 square feet
Construction Material Allowed: Fiberglass
Price Range: New, about $775
Principal Builder: Beetle Boat Co., Inc., East Greenwich, R. I.
Racing Activity: This is one of the most popular training racers in the East. Used in many interclub races and frostbite events.

Thistle

Association Name: Thistle Class Association
Annual Dues: Full boat-owner's, $6; associate members, $3
Insignia on Sail: Thistle in bloom
Type and Dimensions: Centerboard sloop
Overall length—17 feet Draft—6 inches*
Waterline—17 feet Sail area—175 square feet
Beam—6 feet
Construction Materials Allowed: Molded plywood or fiberglass
Price Range: New, less sails, to $1,650; used, up to $1,400; kits, less sails, $700 to $1,000; sails average $235 for main and jib, and $90 for spinnaker.
Principal Builders:
O. C. Bailey Co., 521 S. Water St., Corpus Christi, Texas
Douglass and McLeon, Inc., Box 311, Painesville, Ohio
Elderlee, Oaks Corners, N. Y.
R. Hamann & Sons, RFD, Carmel, N. Y.
Holland Boat Works, Old Bayshore Highway, Burlingame, Calif.
Marriott Cove Yacht Yard, Box 77, Chester, N. S., Canada
W. D. Schock Co., 18141 Greenville, Rd., Santa Ana, Calif.
Racing Activity: Most of the 1,500 boats that have been built are very active. There are some 83 fleets in the United States.

The Thistle (*left*) and the Windmill

Town

Association Name and Address: National Town Class Association, 14 Washington Sq., Marblehead, Mass.
Annual Dues: Membership is by fleets—50c per boat
Insignia on Sail: Letter "C" superimposed on letter "T"
Type and Dimensions: Centerboard sloop

Overall length—16 feet, 6 inches
Waterline—13 feet, 2 inches
Beam—5 feet, 10 inches
Draft—2 feet, 4 inches**
Sail area—152 square feet

Construction Materials Allowed: Wood, either lapstraked or smooth planed
Price Range: New, under $1,000, plus sails, about $200; used, $50 to $900
Principal Builder: Pert Lowell, Lane's End, Newbury, Mass.
Racing Activity: Principal fleet at Marblehead, Mass. (over 80 boats—75 races scheduled June through September). Other fleets at various locations—mostly in New England. Over 1,100 boats built since 1932 and many are active.

Turnabout

Association Name: National Turnabout Association
Insignia on Sail: Letter "T" within a circle
Type and Dimensions: Centerboard catboat

Overall length—9 feet, 8 inches
Waterline—9 feet
Beam—5 feet, 3 inches
Draft—6 inches*
Sail area—60 square feet

Construction Material Allowed: Plywood
Price Range: New, under $400
Principal Builder: Harold Turner, Parker River, Newbury, Mass.
Racing Activity: In the Eastern states many yacht clubs and summer camps have chosen Turnabouts for their Junior-racing programs. Inter-club racing is very popular and national racing events are being planned.

Victory

Association Name: Victory Association
Annual Dues: $2
Insignia on Sail: Checkered flag

Type and Dimensions: Keel sloop
Overall length—21 feet Draft—3 feet
Waterline—15 feet Sail area—185 square feet
Beam—6 feet, 3 inches
Construction Material Allowed: Fiberglass
Price Range: New, about $2,000
Principal Builder: Henry R. McCane, 8428 S. Fernando Rd., Sun Valley, Calif.
Racing Activity: Most of the 120 boats in the class are concentrated in California waters, were they are popular as day-sailers and cruising boats as well as racers.

Windmill

Association Name and Address: Windmill Class International Racing Association, 784 53rd Avenue So., St. Petersburg 5, Fla.
Annual Dues: $5
Insignia on Sail: Windmill (see page 143)
Type and Dimensions: Centerboard sloop
Overall length—15 feet, 6 inches Draft—6 inches*
Waterline—14 feet, 8 inches —3 feet, 7½ inches**
Beam—4 feet, 8 inches Sail area—119 square feet
Construction Material Allowed: Plywood
Price Range: New, with sails, about $700; used, about $500
Principal Builders:
Armstrong Boats, Inc., Rt. 3, Norwell, Mass.
Concho Boat Co., 2515 N. Randolph St., San Angelo, Texas
R. Ellenbest, 1300 Betty Lane, Clearwater, Fla.
Graham-Prams, 8365 Leona St., Forestville, Washington 25, D.C.
R. Hamann & Sons, Rt. 52, Carmel, N. Y.
Homer Luzier, 1130 Pomelo Ave., Sarasota, Fla.
John I. Stroud, 6710 Collins Ave., Pennsuaken, N. Y.
Racing Activity: Extremely popular in Southern waters. Florida, Alabama, Georgia and Texas hold Windmill State Regattas as well as nationals and internationals. Approximately 1,500 boats are now being sailed, and range throughout 42 states and Cuba, Canada, Guatamala, Finland and Japan. This class is still in its infancy, but a good, strong organization.

Other Data: The Windmill was designed as a step-up boat for Optimist Class Pram graduates who, at 15 years of age, were no longer able to compete via Prams. Now, however, adult owners far outnumber the teenage group.

Wood-Pussy

Association Name: National Wood-Pussy Class Association
Annual Dues: $5
Insignia on Sail: Letters "WP" interlocked
Type and Dimensions: Centerboard catboat
Overall length—13 feet, 6 inches Draft—7 inches*
Waterline—11 feet, 3 inches —3 feet, 6 inches**
Beam—6 feet Sail area—106 square feet
Construction Materials Allowed: Fiberglass or wood, or wood covered with fiberglass
Price Range: New, $1,100 to $1,200; used, $350 to $750
Principal Builder: O'Day Corporation, Inc., 9 Newbury St., Boston 16, Mass.
Racing Activity: Fleets are located at Larchmont, Cold Spring Harbor, Manhasset Bay, East Hampton, Shelter Island, Ossining and Cedarhurst in New York; New Bedford and Edgartown in Massachusetts; Narragansett Bay in Rhode Island; Shrewsbury River in New Jersey; and several locations on the West Coast and in a few places in Southern waters. In addition to local club racing, the championships are New Jersey, Long Island, West Coast and national. Of the 1,500 boats built, over 300 are racing regularly.

Y-Flyer

Association Name and Address: American Y-Flyer Yacht Racing Association, 821 Pepper St., Columbia, S. C.
Annual Dues: Active or associate members $6; crew members, $2
Insignia on Sail: Letter "Y"
Type and Dimensions: Centerboard sloop (scow design)
Overall length—18 feet Draft—6 inches*
Beam—5 feet, 8 inches —4 feet**
Sail area—162 square feet

The Wood-Pussy (*left*) and the Y-Flyer

Construction Materials Allowed: Fiberglass or plywood
Price Range: New, with sails, $1,500 to $1,700; used, $1,000 to $1,350; kits also available.
Principal Builders:
Falls City Fiberglass Co., 125 S. 9th St., Louisville 15, Ky.
Gibbs Boat Co., 6580 Morin Grove, Erie, Mich.
Jack A. Helms Co., 821 Pepper St., Columbia, S. C.
Glenn Mottin Sailboat Sales, 8005 Monroe St., St. Louis 14, Mo.
Racing Activity: This class has approximately 500 boats in the United States and another 600 in Canada. Point-score races in 30 local fleets, located all over the United States. U. S. National Championship, Junior and Senior Divisions, are held each August. The International Championship Youngquist Trophy Races are sailed each year, with competition between the American Y-Flyer Yacht Racing Association and the Canadian Y-Flyer Yacht Racing Association.

Other Data: This is a sailboat which is often constructed by the home builder. Blueprints and specifications may be obtained from the association secretary at a cost of $10. The structural design, sail inventory, etc. are regulated by the International Y-Flyer Yacht Racing Union. This serves to keep ownership costs at a minimum and resale value high.

Zephyr

Association Name: Zephyr One-Design Association
Annual Dues: $2.50
Insignia on Sail: Letter "Z"
Type and Dimensions: Keel sloop

Overall length—20 feet	Draft—2 feet, 6 inches
Waterline—18 feet, 6 inches	Sail area—115 square feet
Beam—4 feet	

Osprays sailing windward

5.5 Meter Class boats under sail

Construction Material Allowed: Plywood
Price Range: New, about $1,750; used, $900 up
Principal Builder: Basin Boatcraft, Oakland, Calif.
Racing Activity: A San Francisco Bay one-design; there are over 90 in the Bay Area and this is a *very* active racing class.

Zip

Association Name: Zip Sloop Racing Association
Annual Dues: $5
Insignia on Sail: Red letter "Z"
Type and Dimensions: Keel sloop

Overall length—17 feet	Draft—2 feet
Beam—6 feet	Sail area—130 square feet
Waterline—16 feet	

Construction Materials Allowed: Fiberglass from 1961. Wood planking before 1961. Up to 1,500 wood boats were built.
Price Range: New, $1,800 to $2,000; used, $500 to $1,200; kits, $1,500
Principal Builder: Zip Sloop, Inc., 1580 N. E. 125th St., North Miami, Fla.
Racing Activity: Over 400 boats are active, most of them in the waters of Rhode Island, Connecticut, Massachusetts and New York.

OTHER SAILBOAT ONE-DESIGN CLASSES

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
A Class	K	S	27′ 9″	7′ 2″	368
A Class Dinghy	CB	C	11′ 6″	4′ 6″	72
Acadian	K	S	17′	6′	197
Adams Interclub	K	S	24′ 6″	6′	253
Advanced Trainer	K	S	28′	5′ 8″	250
Albatross	K/CB	S	20′	6′ 8″	225
Albatross	K	S	22′ 8″	5′ 10″	218
Alden O Class	CB	S	18′ 3″	6′ 2″	200
Alden 12	K	S	16′	5′ 9″	160
Alpha	CB	S	12′	5′	90
Annisquam Bird	CB	C	19′	6′	217
Annisquam Cat	CB	C	16′	7′ 6″	140
Annisquam Fish	CB	C	15′	6′ 6″	120
Aquilla	CB	S	14′	5′	120
Arrow*	K	S	21′ 9″	6′	180
Arrow**	K/CB	S	18′	5′ 11″	165
Atlantic City Cat	CB	C	15′	6′	170
Bar Harbor 17′	K	S	21′	6′ 8″	200
Barracuda	CB	S	16′	5′ 3″	119
Bay Bird	CB	S	18′	6′	135
Barnegat Bay Sneakbox	CB	S	15′	6′	150
BB Gull	CB	C	11′ 1″	—	—
BB Sailer	CB	C	9′	—	—

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
BB Swan	CB	C	12′ 8″	6′ 4″	90
B Class	K	S	26′	6′ 6″	312
B Class Dinghy	CB	C	11′	4′ 6″	72
Beverly Dinghy	CB	C	11′ 6″	4′ 6″	66
Biddleford Pool 18	K	S	18′	6′	197
Black Rock	K	S	22′	6′ 9″	220
Blue Bird	CB	C	7′ 2″	3′ 6″	40
Blue Buoy	CB	S	13′ 6″		
Bluenose	K	S	23′ 2″	6′	225
Bobcat	CB	C	9′	4′	60
B-O Class Dinghy	CB	C	11′ 6″	4′ 6″	72
Boothbay Harbor	K	S	21′	5′ 6″	200
Bristol		(see Bull's Eye Class—page 00)			
Brutal Beast	CB	S	14′	6′	100
Bull Dog	K	S	14′	5′ 4″	110
Bulter Cat	CB	C	18′	6′ 6″	170
Buster	CB	C	14′	6′	135
Butterball	CB	C	9′ 6″	5′ 6″	49
Camal	K	S	18′	5′ 8″	150
Candy Class	CB	S	12′	4′	105
Cape Cod Junior	CB	S	15′	5′	110
Cape Cod Knockabout	CB	S	18′	6′ 6″	170
Cape Cod Nimblet	CB	S	15′	5′ 1″	136
Catabout	CB	C	15′	5′ 8″	120
Catspaw	CB	C	16′	6′ 6″	140
C-C	CB	S	18′	6′	170
C Class	K	S	25′	6′ 6″	341
Charles River Basin One-Design	K	S	15′	5′ 5″	—
Chesapeake 20	CB	S	20′	6′ 7″	171
Chick	CB	C	10′ 11″	4′ 6″	60
Clamshell	CB	C	8′	3′ 6″	40
Class B	K	S	11′ 9″	4′ 6″	72
Clipper	K	S	17′	6′	150
Clipperdink	CB	C	8′ 3″	3′ 6″	36

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Coast 13	CB	S	13′ 5″	4′ 11″	104
Cold Spring Harbor One-Design	K	S	21′	5′ 6″	250
Compass Class	CB	S	18′	6′	150
Conanicut 16	CB	S	22′	7′	230
Condor	K	S	18′	6′ 8″	180
Connecticut Moth	CB	C	11′	4′ 2″	67
Corinthian	K	S	20′ 6″	6′ 4″	268
Corinthian One-Design	CB	S	23′ 9″	7′	225
Corsair	CB	S	20′	5′ 4″	135
Cottage Park 15	K	S	24′	5′	200
Cotuit Skiff	CB	C	14′ 5″	5′ 2″	115
Crescent	CB	S	13′ 6″	5′	95
Cricket	CB	C	15′	5′	130
Crosby Cat	CB	C	14′	6′	100
Crosby 16	CB	S	15′ 8″	5′ 4″	133
Cub	CB	S	16′	6′	110
Cub	K	S	22′ 7″	6′ 6″	278
Dark Harbor 17	K	S	25′ 10″	6′ 3″	311
D Class	CB	C	10′	4′ 3″	66
Defender	K	S	24′	6′	200
Delta	CB	C	12′	5′ 9″	75
Demon	CB	C	13′	5′ 3″	100
Diamond	CB	C	12′ 6″	4′ 9″	65
Dolphin	CB	S	15′ 4″	6′	165
Dolphin	K	S	19′ 6″	6′ 3″	175
Dough Dish	(see Bull's Eye Class—page 91)				
Ducking	CB	S	9′ 4″	4′	40
Dublin Sloop	CB	S	13′ 6″	5′	100
Dutch Pirate	K	S	21′ 6″	6′ 6″	183
Duxbury Duck	CB	S	18′	6′ 4″	210
Eagle	CB	S	19′	6′ 2″	159
Edgartown Beach Boat	CB	S	13′ 10″	5′ 3″	100
Edgartown Dory	CB	S	17′	5′ 3″	160
Edgartown 15	CB	S	22′ 6″	6′ 6″	200

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Edgartown Rover	CB	S	17′	6′	155
Edgartown Skiff	CB	C	12′ 6″	4′ 7″	80
Eka-L	CB	S	13′ 10″	5′	92
Eleven Plus	CB	S	11′	4′ 7″	70
Elvstrom Jr.	CB	C	11′ 2″	5′ 4″	70
Esquimo	CB	S	23′	6′ 6″	220
Falcon	K	S	22′ 6″	6′ 6″	256
Falcon	CB	S	15′ 7″	5′ 9″	137
Feather	CB	C	9′ 6″	4′ 2″	55
Fenwick Dory	CB	S	21′	6′ 3″	210
Fireball	CB	S	14′	5′ 1″	122
Fish	K	S	20′ 9″	7′ 1″	289
Fish Catboat	CB	C			
Fishers Island	K	S	25′ 8″	5′ 8″	200
Fleetwing Arrow	CB	S	15′ 10″	5′ 8″	113
Flibustier	CB	S	15′ 7″	5′ 5″	143
Flying Feather	CB	S	20′	6′	165
Flying Junior	CB	S	13′ 2″	4′ 11″	100
420	CB	S	13′ 10″	5′ 4″	110
Frolic	CB	C	11′	4′ 5″	77
Frost 18	CB	S	18′	6′	185
Frostbite	CB	C	9′	4′ 1″	57
Gazelle	CB	S	22′ 8″	6′ 7″	189
G Class	CB	S	18′	6′ 3″	200
Ghost	CB	S	12′ 1″	5′ 2″	87
Goshawk	CB	C	11′ 6″	4′ 6″	72
Gosling	CB	S	11′ 6″	4′ 8″	—
Great Lakes 21	(same as International 21)				
Gulf Fish Class	K	S	20′ 6″	6′ 8″	268
Gull	CB	C	13′ 6″	5′ 3″	93
Great South Bay Shore Bird Class	K	S	21′ 1″	6′ 4″	250
Great South Bay One-Design	K/CB	S	24′	7′ 1″	280
Handicap Class	K	S			

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Hawk	CB	S	14′ 8″	6′	123
Heron	CB	S	11′ 3″	4′ 6″	72
Herreshoff 15	CB	S	24′	5′ 9″	200
Herreshoff 16	K	S	20′ 9″	7′ 1″	280
Herreshoff 16	K	S	23′	6′ 3″	200
Herreshoff 12	K	S	15′ 6″	6′	100
H–14	CB	S	14′	4′ 6″	75
Hingham Dwarf	CB	C	10′	4′	52
Hodgdon 21	K	S	21′	5′ 10″	310
Holiday	K	S	20′	6′ 3″	200
Hull Seabird	CB	S	17′	6′ 3″	220
Hurricane	CB	S	19′	6′ 9″	176
Hustler	CB	C	18′	6′	130
Indian Harbor Pirate	K	S	18′	6′ 2″	193
Indian Landing 20	K	S	20′	6′ 4″	220
Indian River	CB	S	13′ 6″	5′ 10″	97
Indian Scout	CB	S	12′ 6″	4′ 8″	72
Intermountain One-Design	K	S	15′ 10″	6′	100
International One-Design 12-ft Dinghy	CB	S	12′	4′ 7″	95
International Skimmer	CB	S	16′	5′	190
International 12-sq. Meter Sharpie	CB	S	19′ 6″	4′ 6″	130
International 21	K	S	21′	5′ 9″	200
Islander	K	S	21′ 4″	5′ 7″	175
Javelin	K	S	23′ 6″	5′	190
Jolly Roger	CB	C	10′	4′	60
Junior	CB	S	11′	3′ 10″	82
Junior Class	K	S	22′ 6″	5′ 10″	—
Katama	K	S	25′ 3″	7′ 9″	253
K Class	K/CB	C	22′	8′	270
Kitten	CB	C	9′ 4″	3′ 10″	40
Kohinoor	CB	S	15′ 3″	6′	160
Knickerbocker	K	S	26′ 3″	6′ 7″	306
Knockabout	CB	S	14′	5′ 3″	85

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Lancaster	CB	S	16′	5′ 6″	130
Lark	CB	S	16′	6′ 3″	124
Lawley 15	K/CB	S	15′	5′	100
Lawley 110	K/CB	S	24′	3′ 6″	110
L Class	K/CB	S	28′	7′	325
Lehman Interclub	CB	C	10′ 6″	3′ 6″	67
Lehman 12	CB	C	12′	5′	110
L–18	K	S	22′ 10″	6′	195
Liberty	K	S	17′ 8″	5′ 4″	129
Lightning, Jr.	CB	S	13′ 10″	4′ 11″	92
Little Bear	CB	S	11′ 6″	4′ 6″	86
Loa 17	CB	S	17′	—	—
Long Island	CB	S	16′	5′ 7″	125
Lowell 19	CB	S	19′	6′ 4″	200
Malibu Outrigger***	CB	C	18′ 10″	—	192
Mallard	CB	S	21′ 7″	7′ 6″	218
Manchester 15	CB	S	18′	6′	125
Maraudeur	K/CB	S	16′	5′ 9″	152
Marblehead T	K	S	22′ 2″	5′ 6″	218
Mariner	CB	S	12′ 10″	6′ 4″	110
Manhasset Bay One-Design	K	S	21′ 8″	5′ 2″	230
Massachusetts Bay 15	CB	S	25′	6′ 6″	250
Massachusetts Bay Indian	K	S	21′ 2″	6′ 5″	230
M. B. Class	K	S	29′ 4″	6′ 6″	—
Menemshas	K	S	17′	6′	160
Mermaid Class	K	S	23′	5′ 9″	194
Merry Mac	CB	C	13′ 6″	4′ 10″	95
Metcalf	CB	S			
Meteor	K	S	16′	5′ 4″	134
Midshipmite	CB	S	14′ 6″	4′ 9″	120
Mighty Mite	CB	C	14′	6′ 6″	177
MIT Dinghy	CB	C	12′	5′ 9″	75
Moffet Class	CB	S	19′	6′ 4″	153
Monomoy	CB	S	24′ 6″	7′ 2″	250

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Monomoy Interclub	K	S	24′ 6″	6′	—
Moon Class	CB	C	11′	4′ 3″	85
Mount Desert One-Design	K	S	21′	6′ 8″	260
Mystic Dinghy	CB	C	10′	4′ 5″	66
Nantucket Indian	CB	S	21′ 2″	6′ 3″	225
Nantucket Rainbow	CB	C	12′	5′	100
National 19	CB	S	19′	6′ 6″	220
Narrasketuck	CB	S	20′	6′ 4″	255
Navigator	K	S	21′	6′ 4″	188
Navy Knockabout	CB	S			
Newport Dory	CB	S	16′	—	—
New Rochelle Rainbow	CB	S	16′	5′ 7″	125
Nod	CB	S	17′	5′ 8″	132
Nomolo	CB	C	10′	4′	44
North Shore One-Design	CB	S	15′ 6″	5′ 7″	122
Nutshell	CB	C	10′	4′	45
Olso	CB	S	18′	5′	102
Olympic Monotype	CB	C	12′	5′	80
Orion	K	S	19′	6′ 9″	203
Ospray	CB	S	15′ 6″	6′	126
Osprey	CB	S	17′ 6″	5′ 4″	150
Oxford Sailer	CB	S	14′	4′ 8″	76
Oyster Harbor Cat	K/CB	C	14′	6′ 4″	133
Pacific 14	CB	S	14′	4′ 8″	120
Patricia Skimmer	CB	C	16′	5′ 1″	185
Pegasus	CB	S	14′ 6″	4′ 10″	114
Pennant 18	K	S	18′	6′ 2″	195
Pennant S	K	S	21′ 8″	6′ 6″	245
Pequot Indian Class	K	S	22′	6′ 11″	247
Pilot Class	K	S	16′ 6″	5′ 9″	165
Pine Tree	CB	S	19′	6′	175
Pinfin	CB	C	12′ 1″	4′ 8″	65
Pioneer	CB	S	17′	6′ 4″	158
Pirate	K	S	1′	7′ 1″	247
Pow-Wow	CB	S	16′	5′ 6″	135

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Privateer	K	S	26′	7′	275
Puddle Duck	CB	C	7′ 10″	4′	36
Puffin	CB	S	14′	6′	102
Pup	K	S	20′ 4″	—	231
Quincy Adams 17	K	S	26′ 6″	6′	253
Quincy Bantam	CB	S	18′	7′ 3″	200
Quincy Dolphin	CB	S	15′	6′	135
Quincy 15	CB	S	15′	7′ 9″	247
Quincy Pirate	CB	S	24′	6′	210
Raceabout	K	S	23′	5′ 8″	200
Radio Class	CB	S	16′ 6″	6′	142
Rainbow	CB	C	10′	4′ 4″	66
Rainbow	K	S	23′ 3″	5′	197
Rainbow	CB	C	12′	4′	70
Red Dragon	CB	S	12′ 6″	4′ 8″	78
Red Wing	K	S	15′ 9″	5′ 6″	150
Red Wing	K	S	17′ 5″	5′	125
R–11	CB	S	—	—	—
Resolute	K	S	27′ 7″	6′ 4″	330
Robin	CB	S	17′ 6″	6′ 1″	180
Rocket	CB	S	18′	6′ 6″	180
Rooster	CB				
Ross 13	CB	S	13′ 2″	4′ 7″	110
Sabot S	CB	S	8′	4′	45
Sabre	CB	S	16′	5′ 7″	120
Sakonnet Class	K	S	18′ 6″	6′ 6″	183
San Diego Sun	CB	S	22′	6′ 11″	—
Sandpiper	CB	S	12′ 6″	4′ 6″	94
Sandusky 18	CB	S	18′	6′ 3″	175
Sandy Bay	CB	S	25′	7′	264
Scat	CB	S	13′	5′	90
Scat	CB	S/C	14′	5′ 1″	120
S-Class	K	S	27′ 6″	7′ 2″	425
Scout	CB	S	16′	5′ 4″	—
Sea Bee	CB	S	15′ 6″	5′ 7″	125

Class Name	Keel or Center-board	Catboat or Sloop	Overall Length	Beam	Sail Area in Square Feet
Sea Bird	K	S	24′	5′ 9″	175
Seabright	CB	C	7′	3′ 8″	46
Seaford Skiff	CB	S	—	—	—
Sea Gull	CB	S	18′	′	165
Sea Horse	CB	S	16′ 5″	5′ 5″	140
Sea Kettle	CB	S	16	5′ 8″	110
Sea Scouter	CB	C	10′	4′ 2″	
Seawanhaka 21	K	S	31′	6′ 6″	357
Senior B. K.	K/CB	S	23′	6′ 6″	215
Seven/Eleven	CB	C	7′ 11″	4′ 2″	34
Shamrock	K	S	25′	6′	215
Shark	K	S	22′	5′	210
Shinnecock	CB	S	24′	6′ 7″	300
Shore Bird	K/CB	S	21′	6′ 4″	249
Shrimp Class	CB	S	12′	4′ 6″	90
Skim-Air	CB	C	9′	4′ 5″	47
Snowbird	CB	C	11′	5′	97
Snow Flake	CB	C	9′ 4″	4′ 6″	50
Sophomore	K	S	22′	5′ 9″	200
Sound Interclub	K	S	28′ 6″	7′ 9″	408
South Mass. 19	K	S	19′	5′ 10″	157
South Swansea Skiff	CB	C	12′	4′ 6″	87
Spider	CB	S	18′	6′	125
Splinter	CB	S	14′ 4″	5′ 2″	120
Sprite	CB	C/S	10′ 1″	4′ 7″	70
Squall	CB	C	9′	4′	60
Squeegee	CB	C	17′ 6″	5′ 10″	200
SS Class	CB	C	16′ 6″	4′ 8″	123
Stage Harbor 18	CB	S	20′	6′	165
Stamford Bird	CB	S	18′	6′ 3″	162
Starlet	CB	S	16′	4′ 2″	130
Suicide	CB	S	22′	—	125
Su-Mark	CB	C	8′ 2″	4′	36
Sundadee 18	K	S	24′ 8″	6′ 3″	230
Swallow	K	S	25′ 6″	5′ 8″	200

Swordfish	CB	S	15′	—	—
Tallstar	CB	S	14′	5′ 6″	122
Taurus	CB	C	9′	4′	45
Taft Cup Cat	CB	C	22′	8′	270
T Class	K	S	22′ 2″	5′ 6″	218
Terrier	CB	S	12′	4′ 8″	96
Texas Long Horn	K	S	20′	6′	158
Thunderbird	CB	C	8′	4′	60
Tiger	CB	C	11′ 6″	4′ 4″	84
Time Allowance Class	K	S	—	—	—
Tinker Class	CB	C	14′	6′	100
Tomahawk	K	S	24′ 8″	7′ 4″	218
Toppan Tot	CB	C	15′	6′ 6″	—
Tribe	K	S	15′ 8″	5′	111
Tumlaren	K	S	27′ 8″	6′ 3″	220
Tutor Ten	CB	S	11′ 7″	4′ 3″	64
Twelve-foot International One-Design	CB	S	12′	4′ 8″	72
Vagabond	CB	S	20′	6′ 6″	195
Valiant	CB	S	20′	6′ 6″	196
Vaurien	CB	S	13′ 5″	4′ 10″	87
Vermilion 25	K	S	25′	7′ 2″	270
Victory	CB	S	18′ 3″	6′ 6″	145
Viking	K	S	20′	6′	208
Viking	K	S	25′	7′ 6″	325
Vineyard Haven 15	K	S	21′	6′	210
Vixen	CB	C	10′	4′ 6″	60
Wakefield Skimmer	CB	C	14′	5′	120
Warwick Necker	K	S	20′	6′ 7″	212
Warwick 16	K	S	21′	7′	—
Wayfarer	CB	S	16′	6′ 2″	141
Weasel	CB	C	11′ 4″	5′ 6″	90
Wee Scot	K	S	15′ 3″	5′ 3″	144
Wellfleet	CB	S	18′	6′ 9″	220
Wenaumet Kitten	CB	C	14′	6′	120

Westport Dory	CB	C	12′ 2″	4′	85
White Cap	CB	S	13′ 1/2″	5′ 4″	90
Wianno Jr.	CB	S	16′ 6″	6′	139
Wianno Sr.	K/CB	S	25′	8′	362
Winabout 18	CB	S	18′ 6″	6′	210
Winabout 16	K/CB	S	16′	5′ 9″	152
Win'ard Sabot	CB	C	—	—	—
Winthrop 15	CB	S	22′	6′	210
Winthrop Hustler	CB	C	18′	6′	130
X Boat	CB	S	16′	6′	110
X Class One-Design	CB	C	11′ 6″	4′ 8″	72
Yankee Clipper	CB	S	13′ 6″	5′ 7″	100
Yankee Dory	CB	S	18′	5′ 7″	140
Zenith	CB	S	15′ 6″	6′ 3″	170
Zephyr	K/CB	S	24′	7′ 1″	280
Zest	K	S	30′ 2″	6′ 9″	313
Zip Class	CB	S	14′	5′	100

* Original Arrow—Insignia on sail: Black "R" above an arrow

**New design of Arrow—Insignia on sail: Arrow pointing inboard

***Information on this class can be had from Malibu Outrigger Class Association, Malibu Yacht Club, Malibu, Calif.

Meter Classes

Meter class boats vary considerably in dimensions. That is, all boats in a meter class closely resemble one another, but they are not nearly as identical as one-designers. They differ in hull form and leading dimensions, thus keeping alive the art of design; they all, however, fit within the closely knit framework of the International Class Meter Rule, and race together on level terms—without handicap. In other words, the boats are designed under strict formula—they are sometimes called "formula classes."

The *approximate* dimensions of the leading meter classes are:

	Overall Length	*Waterline Length*
12 meter	70 feet	46 feet
10 meter	60 feet	38 feet
8 meter	50 feet	32 feet
6 meter	40 feet	25 feet
5.5 meter*	35 feet	23 feet

*This boat is the meter class raced in the Olympic Games.

Restricted Classes

This group of racing sailboats is similar to the meter or formula classes. Actually, meter boats could be or should be considered members of the restricted classes. That is, boats in the restricted classes are built to certain restrictions, but the designers have certain leeway in living up to these rules. Thus, the restricted boats are permitted the employment of the designer's experience in an individual design to fulfill the given conditions of the class. This constructive competition among the designers produces a very healthy rivalry in all the popular restricted classes. Among these might be mentioned the "O," the "P," the "Q," and the "R" class, under the Universal Rule; and the 6-meter and 12-meter under the International Rule (see page 00).

Boats of the restricted classes vary considerably in length, sail area, etc., but the following data are representative of the more popular classes:

Class	*Overall Length*	*Waterline Length*	*Beam*	*Sail Area in Sqare Feet*
O	59′9″	38′6″	12′	1,660
P	54′	33′	10′2″	1,450
Q	46′6″	26′	8′9″	930
R	38′	24′	7′8″	610

In some areas, the racing fleets operate under restricted handicap classes such as Class A for all boats over 30 feet racing length, Class B for boats between 25 and 30 feet racing length and Class C for craft between 20 and 25 feet racing length.

International Racing Classes

The meter classes and some one-design classes are built to the rules of the International Yacht Racing Union. This is the world authority controlling yacht racing, and the classes which it administers are known as International classes. The following are the classes recognized by the I.Y.R.U.

12 Meter	10 Meter	8 Meter
6 Meter	5.5 Meter	30-Sq. Meter*
22-Sq. Meter*	Dragon	Star
Flying Dutchman	Lightning	505
12-Sq. Meter Sharpie	Snipe	14-ft. Dinghy
12-ft. Dinghy	Cadet	

*These classes are classified by their sail area. The Tumlaren Class (The International Tumlaren Yacht Association) is a popular class based on the sail area in the United States. In the United States it is considered a member of the 20 square meter group whereas those racing in Canadian waters are considered 25 meter class.

Every boat of an international class recognized by the I.Y.R.U. shall carry on its mainsail:

a. When racing in foreign waters a letter or letters showing its nationality, thus:

A	Argentine	J	Japan
AR	United Arab Republic	PZ	Poland
B	Belgium	RC	Cuba
BA	Bahamas	RI	Indonesia
BL	Brazil	RM	Rumania

BU	Bulgaria	S	Sweden
CY	Ceylon	SA	South Africa
CZ	Czechoslovakia	SR	Union of Socialist Soviet Republics
D	Denmark	T	Tunisia
E	Spain	TH	Thailand
EC	Ecuador	TK	Turkey
K	United Kingdom	U	Uruguay
KA	Australia	US	United States of America
KB	Bermuda	V	Venezuela
KC	Canada	X	Chile
KH	Hong Kong	M	Hungary
KK	Kenya	MA	Morocco
KR	Rhodesia and Nyasaland	MD	The Principality of Monaco
KS	Singapore	MX	Mexico
KZ	New Zealand	N	Norway
L	Finland	OE	Austria
F	France	P	Portugal
G	The Deutsche Bundes Republik and West Berlin	Z	Switzerland
I	Italy	PH	The Philippines
GE	Greece	PU	Peru
GO	Deutsche Demokratischen Republik	Y	Yugoslavia
H	Holland		

b. A number, letter or emblem showing the class to which the boat belongs.

c. The number of the boat: A number to enable the boat to be distinguished. This number shall be allotted to the boat by its own national authority or class association. Assuming a five-point-five-meter boat belonging to the Argentine Republic to be alloted number 3 by the Argentine national authority, its sail shall be marked: $\frac{5.5}{A3}$

CHAPTER 7

Racing-Cruising Sailboat and Auxiliary Classes

In the last chapter we concerned ourselves with sailboat one-designers, or classes suitable for racing and day-sailing. In this chapter we will take a look at more popular classes of boats used for distance and handicap racing as well as overnight or extended cruising. Even many of the large boats can be employed in ocean racing. Also many of these sailboats are raced in one-design classes and have class associations the same as the craft mentioned in Chapter 6.

As was the case with the boats mentioned in Chapter 6, the majority of the boats described in this chapter are designed with a prime purpose—either racing or cruising. However, unlike the smaller boats, the racer-cruiser, by its general design, is more compatible to both sports than the racer-day sailer. All the boats mentioned have cabins with at least sleeping for two, and most have galley and head (toilet) facilities. The vast majority are designed for auxiliary power, either inboard or outboard. This type of sailboat, when compared with those described in Chapter 6, represents a considerable investment of money. However, when purchasing a class boat such as described in this chapter, the investment is usually a good one since you also are making an investment in years of family fun.

In the field of cruising-racing auxiliaries there is a very wide range of choice in the class or "stock" models available. The reason for this is that skippers like designs that are more custom to their needs. But there is no "planned obsolescence" in these boats. Model or classes do not change by the year, and only a few new ones are added. Once a design has been established, it is continued unchanged for as long as there is a public for it. As is the case with many racer-day-sailers, many of the designs are

perpetuated by associations formed by owners which establish rules for maintaining the one-design characteristics so that the boats can be raced without handicapping. This also protects used-boat values. The builder may define or modify certain features of the layout or equipment, but the basic design will remain the same year after year.

There is no simple or general rule to determine the cost of these boats. In the smaller, simpler boats the price can usually be figured at about $110 to $150 a foot. In completely equipped boats in the 22- to 28-foot range, it is roughly $200 to $400 a foot with some going higher, and over 30 feet it goes up to over $500. In the bigger auxiliaries, especially those outfitted for major ocean races, it can go to $1,000 a foot and up. The smallest boats taking part in such ocean-racing classics as the Bermuda Race are approximately 35 feet long.

Of the vast catalogue of stock auxiliaries, the following are the more popular over the years. They are generally available without too much of a wait for delivery from the manufacturer or local dealers. Prices given are approximate, as extra equipment and choice of power plant affect the total delivered price. There is also a wide range in the price of sails, depending on whether they are cotton or dacron, imported or domestic. All models can, of course, be bought on time-payment plans.

Key

LOA—Length overall
LWL—Waterline length
Keel/centerboard—combination type
CCA—Cruising Club of America (see Chapter 5)
MORC—Midget Ocean Racing Club (see Chapter 5)

Acorn

Type—Keel sloop; *LOA*—19′ 2″; *LWL*—16′ 7″; *Beam*—3′ 9″; *Draft*—3′ 9″; *Sail area*—187.5 sq. ft.; *Insignia on sail*—gold and dark brown acorn; *Association name*—Acorn Class Association.

Designed especially for sturdy San Francisco Bay weather; safe, fast, easily handled by one person; remarkable cruising accommodations for two or three persons. Raced as a one-design class in the San Francisco Bay area.

Both the Dragon Class boat (*left*) and the S-Class craft (*right*) are primarily racing boats, but both can have full cabin facilities and in some cases have auxiliary power

Aero 24

Type—Keel sloop; *LOA*—24′; *LWL*—19′; *Beam*—4′; *Draft*—4′; *Sail Area*—271 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Power*—outboard or inboard optional; *Insignia on sail*—Numeral "24" within the letter "A"; *Price range*—new, about $6,000; *Principal builder*—Aeromarine Plastics Corp., Sausalito, Calif.; meets MORC requirements.

Alberg 35

Type—Auxiliary keel sloop or yawl; *LOA*—34′ 9″; *LWL*—24′; *Beam*—9′ 8″; *Draft*—5′ 2″; *Sail area*—540 sq. ft.; *Hull construction*—fiberglass; *Berths*—6; *CCA rating*—23.5; *Price range*—new, about $19,000; *Principal builder*—Pearson Corp., 1 Constitution St., Bristol, R. I.

A pair of Amphibi-Cons

Amphibi-Con

Type—Combined keel and centerboard sloop; *LOA*—26′; *LWL*—23′; *Beam*—7′ 9″; *Draft*—2′ 4″; *Sail area*—350 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Price range*—new, with sails, about $6,500 to $7,500 and in kit form, $1,600 and up; *Principal builder*—Mount Desert Yacht Yard, Mount Desert, Maine; *Association name*—Amphibi-Con Association; *Annual dues*—$10.

This craft is generally raced as a one-design class boat and the association holds a national regatta and two or more regional regattas annually.

Amphibi-Ette

Type—Combination keel centerboard sloop; *LOA*—24′ ½″; *LWL*—20′ 1″; *Beam*—7′ 9″; *Draft*—2′ 4″; *Sail area*—225 sq. ft.; *Berths*—4; *Hull construction*—wood planked underbody, plywood top sides and decks; *Price range*—new stock boat with sails, about $5,500; new semicomplete, $3,250; basic kit, $1,500; *Principal builder*—Mount Desert Yacht Yard, Mount Desert, Maine; *Association name*—Amphibi-Ette Association; *Annual dues*—$10.

No racing yet as a class. Good racing record in handicap competition.

Arco 33

Type—Auxiliary centerboard or keel, sloop or yawl; *LOA*—33′; *LWL*—23′ 3″; *Beam*—9′ 10″; *Draft*—4′ 9″ (keel), 3′ 6″ (centerboard); *Berths*—6; *CCA rating*—21.7; *Hull construction*—fiberglass; *Auxiliary power*—22 hp; *Price range*—new, about $17,000; *Principal builder*—Glassco, 3425 N. Moorings Way, Miami 33, Fla.

Atalanta

Type—Auxiliary centerboard sloop; *LOA*—26′; *LWL*—24′; *Beam*—7′ 6″; *Draft*—1′ 3″ (board up), 5′ 9″ (board down); *Sail area*—240 sq. ft.; *Berths*—6; *Hull construction*—molded plywood; *Insignia on sail*—Letter "A"; *Principal builder*—O'Day Corporation, 9 Newbury St., Boston 16, Mass.; *Association name*—Atalanta Owners' Association.

Barnegat 20

Type—keel sloop; *LOA*—20′ 1″; *LWL*—18′; *Beam*—7′; *Draft*—3′; *Sail*

The Atalanta (*left*) and the New Horizons (*right*). Note that the mainsail of the New Horizons has been roller reefed

area—175 sq. ft.; *Hull construction*—plywood; *Insignia on sail*—large letter "G" with the letter and number B20 within it; *Price range*—new, $2,200 to $2,800; *Principal builder*—Graves Yacht Yards, Marblehead, Mass.; *Association name*—Barnegat 20 Association; *Annual dues*—$5.

Raced in Northeast waters as a one-designer. Class also holds several day and overnight cruises.

Bay Lady

Type—keel sloop; *LOA*—20′; *LWL*—17′ 8″; *Beam*—6′ 4″; *Draft*—3′ 10″; *Sail area*—180 sq. ft.; Hull construction—Philippine mahogany; *Insignia on sail*—"Bay Lady" in diamond; *Price range*—new, about $3,200; used, $2,900; *Principal builder*—Okamoto & Son, Yokohama, Japan; *Association name*—Bay Lady MORC Association; *Annual dues*—$5.

Bear

Type—Keel sloop; *LOA*—23′; *LWL*—18′ 1″; *Draft*—3′ 6″; *Sail area*—268 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Insignia on sail*—Bear (a full side view—California Bear); *Price range*—new, $6,500 to $7,500; used, $4,000 to $6,000; *Principal builder*—Nunes Brothers, Sausalito, Calif.; *Association name*—San Francisco Bay Bear Boat Association, Inc.; *Annual dues*—$6.

The Bears race as a one-design class in all races of the Yacht Racing Association of San Francisco events. The only ocean race in which they participate is the 25-mile round trip out to The Lightship. They qualify for MORC but so far none have joined. Otherwise they can be found participating in various other races held about San Francisco Bay.

Bermuda 40

Type—Auxiliary centerboard yawl; *LOA*—40′ 9″; *LWL*—27′ 10″; *Beam*—11′ 9″; *Draft*—4′ 1″ (board up); *Sail area*—725 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Price range*—new, about $40,000; *Principal builder*—Henry R. Hinckley & Co., Southwest Harbor, Maine.

Bird

Type—Keel sloop; *LOA*—30′ 1″; *LWL*—24′ 8″; *Beam*—7′ 8″; *Draft*—5′ 3″; *Sail area*—408 sq. ft.; *Hull construction*—molded plywood or fiber-

glass; *Insignia on sail*—bird wings; *Price range*—new, $10,000; used, $5,000; *Association name and address*—San Francisco Bay Bird Boat Association, 2865 Divisadero St., San Francisco 23, Calif.

This is one of the West Coast's outstanding one-designs and is very active racing as such in the San Francisco Bay Region. Others located in Southern California.

Blanchard Senior Knockabout

Type—Keel sloop; *LOA*—26′ 6″; *LWL*—19′; *Beam*—5′ 11″; *Draft*— 3′ 10″; *Sail area*—285 sq. ft.; *CCA rating*—23.7; *Principal builder*—Blanchard Boat Co., Seattle, Wash.

Raced as a one-designer in the Pacific Northwest where it is better known as the "Senior Knockabout." Blanchard Junior Knockabout is a 20′ version of the 26-footer.

Block Island 40

Type—Auxiliary keel sloop or yawl; *LOA*—40′; *LWL*—27′ 6″; *Beam*—11′ 9″; *Draft*—3′ 11″; *Sail area*—752 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Price range*—new, about $38,000; *Principal builder*—American Boatbuilding Corp., Water St., Warwick, R. I.

The Block Island 40's have had an excellent race record in handicap events, especially in the East.

Bounty II and Bountyawl

Type—Keel sloop or yawl; *LOA*—40′ 10″; *LWL*—27′ 9″; *Beam*—10′ 3″; *Draft*—5′ 9″; *Displacement*—18,800; *Sail area*—661 sq. ft. (sloop), 745 (yawl); *Berths*—6; *Hull construction*—fiberglass; *Auxiliary power—inboard*—30 hp; *Price range*—new, about $28,000; *Principal builder*—Aeromarine Plastics Corp., Sausalito, Calif.

This class boat was the first "big" fiberglass hull to be constructed. Boats of this class are racing on both coasts and on the Great Lakes as handicap craft.

Buccaneer

Type—Auxiliary keel sloop; *LOA*—28′; *LWL*—21′ 6″; *Beam*—7′ 9″; *Draft*—4′ 6″; *Displacement*—7,200 lbs.; *Sail area*—335 sq. ft.; *Hull con-*

struction—plywood or fiberglass; *Auxiliary power—inboard*—25 hp; *Insignia on sail*—cutlass thru the letter "B"; *Principal Builder*—Nichols Boat Works, Oakland, Calif.; *Association name*—Buccaneer Class Association; *Annual dues*—$5.

Buccaneers are raced in the San Francisco Bay area as a one-design class.

California 32—(C32)

Type—Keel sloop; *LOA*—46′; *LWL*—32′; *Beam*—10′ 9″; *Draft*—6′ 9″; *Sail area*—857 sq. ft.; *Berths*—6; *Hull construction*—wood planking; *Insignia on sail*—numeral "32" with letter "C"; *Principal builder*—South Coast Shipyards, Newport Beach, Calif.; *Association name*—California 32 Class Racing Association.

This is the big boat of Southern California racing. It is raced in both one-design class events as well as handicap affairs.

California 24 (Cal 24)

Type—Centerboard sloop; *LOA*—24′; *LWL*—20′; *Beam*—8′; *Draft*—2′ 6″ (board up), 4′ 6″ (board down); *Sail area*—260 sq. ft.; *Berths*—4; *CCA rating*—20.9; *Hull construction*—fiberglass; conforms to MORC requirements; *Insignia on sail*—Letter and numeral "C24"; *Price range*—new, $6,000 to $7,000; *Principal builder*—Jensen-Wenck Marine Corp., 1759 Placentia Blvd., Costa Mesa, Calif.; *Association Name*—California 24 Association; *Annual dues*—$5.

Cal-24's race in Southern California as one-designers. They also compete in offshore races in which they have often been the only boat of their size to compete successfully with larger boats under the CCA rule.

Candy

Type—Centerboard catboat; *LOA*—20′; *Beam*—9′ 6″; *Draft*—2′ 6″ (board down); *Sail area*—340 sq. ft.; *Berths*—2; *Hull construction*—wood planking; *Price range*—new, $6,500 to $7,500—used, $3,500 to $5,000; *Principal builder*—Allan H. Vaitses, Harbor Rd., Mattaposett, Mass.

Cap Vert

Type—Centerboard sloop; *LOA*—26′ 3″; *LWL*—24′; *Beam*—8′; *Draft*—

2′ 7½″ (board up), 4′ 7″ (board down); *Sail area*—318 sq. ft.; *Berths*—4; *Hull construction*—molded plywood or fiberglass; *Insignia on sail*—Letters "CV"; *Price range*—new, about $7,000; *Principal builder*—Nautica Corp., P. O. Box 26, Paramus, N. J.

Carib Holiday

Type—Auxiliary keel sloop or yawl; *LOA*—32′; *LWL*—23′ 4″; *Beam*—9′ 5″; *Draft*—4′ 7″; *Sail area*—484 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Auxiliary power—inboard*—22 hp; *Price range*—new, about $15,500; *Principal builder*—Holiday Yachts, Inc., P. O. Box 227, Centerport, N. Y.

Carinita

Type—Keel sloop; *LOA*—20′ 4″; *LWL*—18′; *Beam*—6′ 9″; *Draft*—3′ 6″; *Sail area*—178 sq. ft.; *Berths*—4; *Hull construction*—plywood fiberglassed; *Price range*—new, about $2,750; *Principal builder*—Trade Wind Yachts, Inc., 51 Harbor St., San Rafael, Calif.; *Association name*—Carinita Sailing Association; *Annual dues*—$5; qualifies for MORC events.

Carinita races as an active one-design class on San Francisco Bay and is an active member of Yacht Racing Association of San Francisco Bay. Because of the interest in and numbers of this boat, regional and national events may soon be organized.

Catalina Holiday

Type—Auxiliary keel sloop; *LOA*—24′; *LWL*—20′; *Beam*—8′; *Draft*—3′ 6″; *Sail area*—314 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Auxiliary power—inboard*—27 hp; *Price range*—new, about $7,000; *Principal builder*—Holiday Yachts, Inc., P. O. Box 227, Centerport, N. Y.; qualifies for MORC events.

Cay

Type—Keel sloop; *LOA*—22′ 9″; *LWL*—19′ 9″; *Beam*—8′; *Draft*—3′; *Sail area*—381 sq. ft.; *Hull construction*—fiberglass and wood; *Insignia on Sail*—Letters "CAY"; *Price range*—new, about $15,000; kits, $1,700 up; *Principal builder*—Glander Boats, Inc., 5960 S.W. 78th St., S. Miami, Fla.; qualifies for MORC events.

The Cay (*left*) and the Corsaire (*right*)

Challenger

Type—keel/centerboard yawl; *LOA*—38′ 6″; *LWL*—27′ 3″; *Beam*—11′; *Draft*—4′ (board up); *Sail area*—670 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *CCA rating*—27.5; *Price range*—new, $31,000 to $36,000; *Principal builders*—Jerome Robinson, 2607 West Coast Hwg., Newport, Calif.; A. LeComte Co., Inc., Pershing Sq. Bldg., New Rochelle, N. Y.

Champion

Type—Keel sloop; *LOA*—21′; *LWL*—15′; *Beam*—7′ 6″; *Draft*—3′ 3″; *Sail area*— 224 sq. ft.; *Hull construction*—fiberglass; *Insignia on sail*—blue ribbon; *Price range*—new, $4,500; *Principal builder*—Henry R. McCune, Shipbuilders, 8428 S. Fernando Rd., Sun Valley, Calif.; *Association name*—Champion Association; *Annual dues*—$2; qualifies for MORC events.

This class is raced on the West Coast as a one-designer.

Chesapeake 32

Type—Auxiliary keel sloop; *LOA*—31′ 9″; *LWL*—22′ 1″; *Beam*—8′ 9″; *Draft*—4′ 9″; *Sail area*—490 sq. ft.; *Berths*—5; *Hull construction*—fiberglass; *Insignia on sail*—numeral "32" encircled by letter "C"; *Price range*—new, $15,000; *Principal builder*—George B. Walton, Inc., P. O. Box 1528, Annapolis, Md.

Chinook

Type—Auxiliary keel sloop; *LOA*—34′; *LWL*—23′; *Beam*—9′; *Draft*—4′; *Sail area*—550 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Price range*—new, $16,000 to $17,000; *Principal builder*—Yacht Constructors, Inc., 710 N.E. 42nd St., Portland 18, Ore.

Corsaire

Type—Keel/centerboard sloop; *LOA*—18′ 1″; *LWL*—16′; *Beam*—6′ 3″; *Draft*—1′ 9″ (board up), 3′ 3″ (board down); *Sail area*—172 sq. ft.; *Berths*—3; *Hull construction*—plywood; *Price range*—new, about $2,400; *Principal builder*—Nautica Corp., P. O. Box 26, Paramus, N. J.; qualifies for MORC events.

Cub

Type—Keel sloop; *LOA*—22′ 7″; *LWL*—18′; *Beam*—6′ 6″; *Draft*—3′ 6″; *Displacement*—3,200 lbs.; *Sail area*—278 sq. ft.; *Berths*—2; *CCA rating*—21.1.

Cutlass

Type—Keel sloop; *LOA*—23′ 7″; *LWL*—19′ 2″; *Beam*—7′ 1½″; *Draft*—4′; *Displacement*—3,800 lbs.; *Sail area*—244 sq. ft.; *Berths*—2 or 4; *Hull construction*—wood, strip built; *Insignia on sail*—a cutlass; *Price range*—*new,* $5,000; *Association name and address*—Cutlass Class Association, c/o Richard D. Carlson, Shelter Island, N. Y.; *Annual dues*—$10; qualifies for MORC events.

This boat has done extremely well in MORC events held in the East, and class racing may be undertaken by the association in the near future.

Dasher

Type—Keel sloop; *LOA*—31′ 6″; *LWL*—26′; *Beam*—8′ 9″; *Draft*—5′ 6″; *Displacement*—10,000 lbs.; *Sail area*—400 sq. ft.; *Berths*—4; *Principal builder*—Easom Boat Works, Gate 1 Marinship, Sausalito, Calif.

Dickerson 32

Type—Auxiliary keel/centerboard ketch; *LOA*—32′; *LWL*—26′ 6″; *Beam*—10′; *Draft*—4′ (board up); *Berths*—5; *Hull construction*—wood planking or plywood fiberglassed; *Price range*—new, $10,800 up; *Principal builder*—Dickerson Boatbuilders, Inc., Church Creek Rd., Cambridge, Md.

Dickerson 32's are sailing on Chesapeake Bay, Long Island Sound, the Great Lakes and the West Coast.

Dolphin

Type—Centerboard sloop; *LOA*—24′ 2″; *LWL*—19′; *Beam*—7′ 8″; *Draft*—2′ 10″ (board up); *Sail area*—296.8 sq. ft.; *Berths*—2 or 4; *Hull construction*—fiberglass; *Auxiliary power—inboard*—8 hp; *Price range*—new, $5,000; *Principal builder*—O'Day Corp., 9 Newbury St., Boston 16, Mass.

The Dolphin conforms to the MORC rules and has a very good performance on the racing beat.

Duet

Type—Centerboard sloop; *LOA*—23′ 6″; *LWL*—18′ 4″; *Beam*—7′ 6″; *Draft*—2′ 3" (board up), 4′ (board down); *Sail area*—260 sq. ft.; *Berths*—2; *Hull construction*—plywood; *Price range*—new, about $6,000; *Principal builder*—Harrison Farrell, 24 Carman St., Massapequa, N. Y.

Dutch Treat

Type—Keel sloop; *LOA*—25′; *LWL*—20′ 1″; *Beam*—7′ 3″; *Draft*—4′ 4″; *Sail area*—236 sq. ft.; *Berths*—2; *Hull construction*—wood planking or plywood; *Auxiliary power—inboard*—5 hp; *Insignia on sail*—wooden shoe; *Price range*—new, about $5,500; *Principal builder*—Mobaco Marine, Southfield Ave., Stamford, Conn.; qualifies for MORC events.

Electra

Type—Keel sloop; *LOA*—22′ 6″; *LWL*—16′ 9″; *Beam*—7′; *Draft*—3′; *Sail area*—227 sq. ft.; *Berths*—2 or 4; *Hull construction*—fiberglass; *CCA rating*—17.0; *Price range*—new, about $4,000; *Principal builder*—Pearson Corp., 1 Constitution St., Bristol, R. I.; qualifies for MORC events.

This boat has an outstanding record in MORC races.

Evergreen

Type—Keel sloop; *LOA*—36′ 3″; *LWL*—24′ 2½″; *Beam*—7′; *Draft*—5′; *Displacement*—8,100 lbs.; *Sail area*—535 sq. ft.; *Berths*—2; *Hull construction*—wood; *Insignia on sail*—evergreen tree; *CCA rating*—32.4; *Principal builder*—Horder, Jacobs & Speck, Inc., Stuart Bldg., Seattle 1, Wash.

Farallone Clipper

Type—Keel sloop; *LOA*—38′; *LWL*—27′ 6″; *Beam*—9′ 6″; *Draft*—5′ 7″; *Sail area*—567 sq. ft.; *Hull construction*—wood planking; *Insignia on sail*—Letter "F" inclosed in letter "C"; *Principal builder*—Stephens Bros., Inc., Stockton, Calif.; *Association name*—Farallone Clipper Class Association.

While Farallones are a popular West Coast ocean racer, they still race as a class in the San Francisco Bay area. Actually they are the largest boat in the United States racing as a one-design class.

Feather

Type—Keel sloop; *LOA*—27′; *Beam*—6′; *Sail area*—275 sq. ft.; *Berths*—2

to 4; *Hull construction*—plywood covered with fiberglass; *Association name and address*—Feather Racing Association, 29641 Enrose St., San Pedro, Calif.

The Feather is a very active racing one-design class in the Southern California area. The design is simple enough that any handy woodworker should be able to complete a satisfactory hull.

Fishers Island 42

Type—Auxiliary centerboard sloop or yawl; *LOA*—42′ 3″; *LWL*—32′ 3″; *Beam*—13′; *Draft*—4′ 3″ (board up); *Sail area*—680 sq. ft. (sloop); *Berths*—6; *Hull construction*—teakwood planking; *Principal builder*—Stonington Boat Works, Inc., Stonington, Conn.

Folkboat (Nordic)

Type—Keel sloop; *LOA*—25′ 1″; *LWL*—19′ 6″; *Beam*—7′ 3″; *Draft*—3′ 11″; *Sail area*—250 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Insignia on sail*—Letter "F"; *Price range*— new, $3,500 to $5,000; *Principal builder*—Vator Oy, Et. Ranta 10, Helsinki, Finland; *Association* name—The Folkboat Class Association.

To date over 1,250 of these popular boats have been built. Fleets of Folkboats are currently racing in all of the Scandinavian countries, England, France, Finland and Germany as well as in the United States. On the West Coast the Folkboats are raced as a one-design class.

Frisco Flyer (Pacific Clipper)

Type—Auxiliary keel sloop; *LOA*—25′; *LWL*—19′ 6″; *Beam*—7′ 2½″; *Draft*—3′ 11″; *Sail area*—230 sq. ft.; *Berths*—4; *Hull construction*—teakwood; *Insignia on sail*—two "FF" back to back; *Price range*—new, $6,000 to $6,500; *Principal builder*—Roland Reed Associates, Inc., 1712 High St., Alameda, Calif.; *Association name*—Pacific Clipper Association; *Annual dues*—$7.

Very active on the West Coast, especially on San Francisco Bay, where it is raced as a one-design class.

Galaxy

Type—Keel or centerboard sloop; *LOA*—32′; *LWL*—24′; *Beam*—10′ 2″;

Draft—5′ (keel), 3½′ (board up); *Sail area*—501 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Price range*—new, $15,500 up.

Gazelle

Type—Centerboard sloop; *LOA*—20′; *LWL*—20′ 2″; *Beam*—6′ 6″; *Draft*—2′ 10″ (board down); *Sail area*—157 sq. ft.; *Berths*—3; *Hull construction*—plywood; *Price range*—new, about $2,500; *Principal builder*—British Industries Corp., Port Washington, N. Y.; qualifies for MORC events.

Golden Gate

Type—Keel sloop; *LOA*—25′; *LWL*—20′ 2″; *Beam*—6′ 6″; *Draft*—5′; *Sail area*—283 sq. ft.; *Berths*—3; *Hull construction*—wood; *Insignia on sail*—two "G's" interlocking; *Association name*—Golden Gate Class Association.

Popular boats that are raced as a one-design class in the San Francisco Bay area.

Great Lakes 36

Type—Centerboard sloop; *LOA*—36′; *LWL*—25′ 5″; *Beam*—10′ 9″; *Draft*—4′ (board up), 7′ (board down); *Sail area*—609 sq. ft.; *Berths*—6; *Principal builder*—Burr Brothers Boats, Inc., Front St., Marion, Mass.

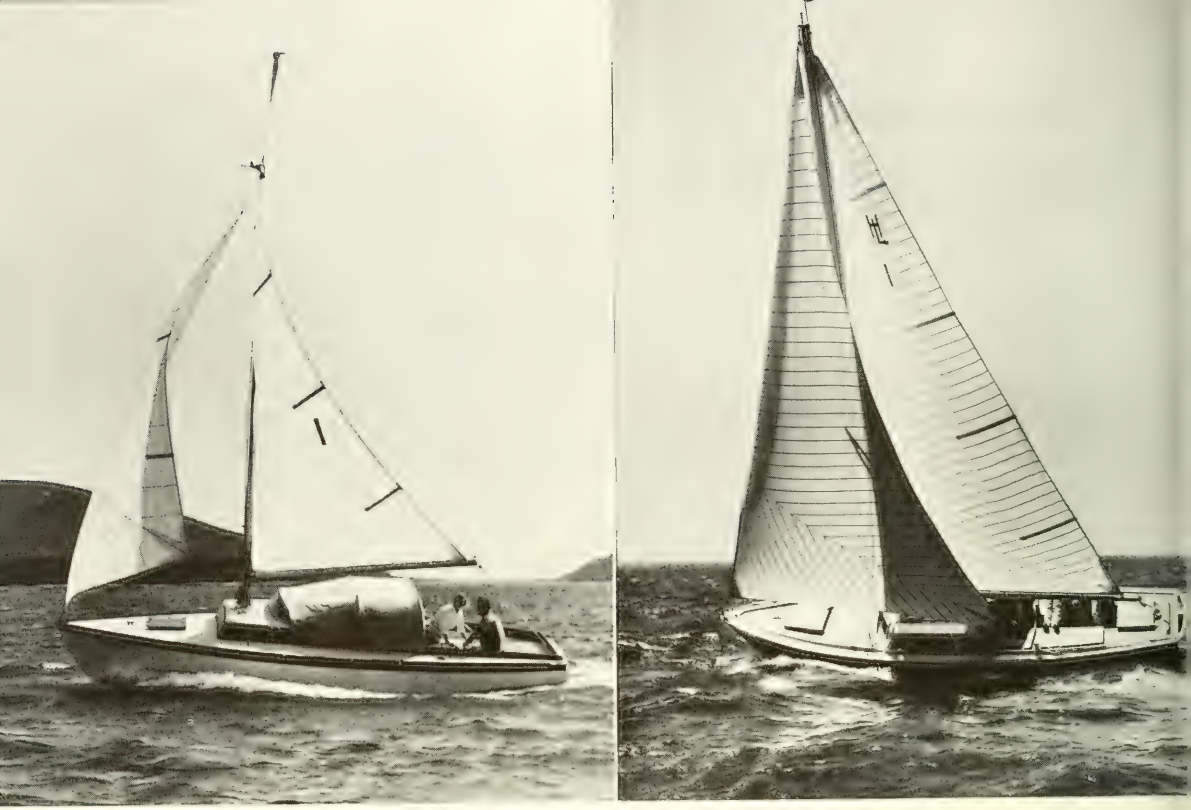
Gulf One-Design

Type—Keel/centerboard sloop; *LOA*—27′ 9″; *LWL*—24′; *Beam*—8′ 10″; *Draft*—2′ 6″ (board up); *Sail area*—375 sq. ft.; *Hull construction*—wood planking; *Insignia on sail*—Letters "GID"; *Price range*—new, $5,500 to $6,000; used, $1,000 to $4,000; *Association name and address*—Gulf One-Design Yacht Racing Association, c/o John O. Prados, 1821 Pine St., New Orleans, La.; *Annual dues*—$10.

Boats are raced as a class in regattas sponsored by the Southern Yacht Club on Lake Pontchartrain in New Orleans and on the Mississippi Gulf Coast.

Gulf Stream 30

Type—Keel sloop; *LOA*—29′ 6¾″; *Beam*—8′ ¼″; *Sail area*—390 sq. ft.;



The Amphibi-Ette (*left*) and the High Liner (*right*)

Berths—4; *Hull construction*—wood planking; *Insignia on sail*—Letters "GS"; *Principal builder*—Robert Derecktor, 311 E. Boston Post Rd., Mamaroneck, N. Y.; *Association name*—Gulf Stream 30 Association.

High Liner

Type—Keel sloop; *LOA*—25′ 11″; *Beam*—7′ 1½″; *Draft*—4′ 9″; *Sail area*—335 sq. ft.; *Berths*—4; *Auxiliary power—inboard*—5 hp; *Insignia on sail*—Interlocking letters "HL."

Holiday 30

Type—Keel or centerboard sloop; *LOA*—30′ 2″; *LWL*—23′; *Beam*—8′ 5″; *Draft*—4′ 3″ (keel), 3′ 3″ (board up), 6′ 3″ (board down); *Sail area*—368 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—22 hp; *Price range*—new, about $9,000; *Principal builder*—Holiday Yachts, Inc., Centerport, N. Y.

Hurricane

Type—Keel sloop; *LOA*—30′ 4″; *LWL*—24′ 6″; *Beam*—7′ 9″; *Draft*—5′; *Sail area*—401 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—25 hp; *Insignia on sail*—hurricane warning; *Price range*—new, about $16,000; used, about $12,500; *Principal builder*—Nunes Bros., Inc., Sausalito, Calif.; *Association name*—Hurricane Association; *Annual dues*—$5.

Raced as one-designers on both coasts.

International 500

Type—Auxiliary keel sloop; *LOA*—31′ 3″; *LWL*—23′ 6″; *Beam*—8′ 8″; *Draft*—4′ 8″; *Sail area*—504 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Principal builder*—Van Breems International Corp., Seaview Ave., Stamford, Conn.

International Marine 35

Type—Auxiliary keel sloop or yawl; *LOA*—34′ 10″; *LWL*—25′ 7¼″; *Beam*—10′ ½″; *Draft*—4′ 8½″; *Displacement*—14,000 lbs.; *Sail area*—556 sq. ft. (sloop), 571 sq. ft. (yawl); *Berths*—6; *Hull construction*—wood planking; *CCA rating*—22.4 (sloop-rigged); *Principal builder*—International Marine Corp., 131 State St., Boston 9, Mass.

Boats racing in handicap events on both coasts and in the Gulf of Mexico.

International Marine 36

Type—Auxiliary centerboard sloop or yawl; *LOA*—36′; *LWL*—26′; *Beam*—10′ 6″; *Draft*—3′ 9″ (board up), 9′ 1″ (board down); *Displacement*—15,000 lbs.; *Sail area*—594 sq. ft. (sloop), 622 sq. ft. (yawl); *Berths*—6; *Hull construction*—wood planking; *CCA rating*—23.7 (sloop-rigged); *Principal builder*—International Marine Corp., 131 State St., Boston 9, Mass.

International Marine 40

Type—Auxiliary centerboard sloop or yawl; *LOA*—39′ 11″; *LWL*—29′; *Beam*—11′ 5″; *Draft*—4′ (board up), 9′ 10″ (board down); *Displacement*—20,000 lbs.; *Sail area*—741 sq. ft. (sloop), 764 sq. ft. (yawl); *Berths*—

6; *Hull construction*—wood planking; *CCA rating*—27 (sloop rigged); *Principal builder*—International Marine Corp., 131 State St., Boston 9, Mass.

Invicta

Type—Auxiliary centerboard yawl; *LOA*—37′ 8″; *LWL*—25′; *Beam*—10′ 8″; *Draft*—4′ 6″ (board up), 7′ 8″ (board down); *Displacement*—14,000 lbs.; *Sail area*—614 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *CCA rating*—25.3; *Price range*—new, about $29,000; *Principal builder*—Pearson Corp., 1 Constitution St., Bristol, R. I.

Javelin

Type—Auxiliary keel sloop or yawl; *LOA*—37′ 10″; *LWL*—25′; *Beam*—10′; *Draft*—5′ 3″; *Sail area*—599 sq. ft. (sloop); *Berths*—6; *Hull construction*—fiberglass; *CCA rating*—24.5; *Price range*—new, about $22,000; *Principal builder*—Seafarer Fiber Glass Yachts, Inc.; 100 East 42nd St., New York 17, N. Y.

Junior Clipper

Type—Keel sloop; *LOA*—25′ 9″; *LWL*—20′; *Beam*—7′ 4″; *Draft*—4′ 9″; *Sail area*—245 sq. ft.; *Hull construction*—plywood; *Auxiliary power—inboard*—20 hp; *Insignia on sail*—letter "C" encircling letter "J"; *Price range*—new, $6,000; used, $3,500 to $4,750; *Principal builder*—Stephens Bros., Stockton, Calif.; *Association name*—Junior Clipper Association; *Annual dues*—$5.

The Junior Clipper is a seasoned veteran in San Francisco Bay and California one-design racing. The design not only offers keen racing competition, but excellent cruising accommodations as well.

Junior Holiday

Type—Keel or centerboard sloop; *LOA*—24′ 1″; *LWL*—18′ 3″; *Beam*—7′ 6″; *Draft*—3′ 7″ (keel), 2′ 3″ (board up), 5′ (board down); *Sail area*—261 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Price range*—new, about $6,000; *Principal builder*—Holiday Yachts, Inc., P. O. Box 227, Centerport, N. Y. Meets MORC regulations.

Kettenburg 38 (K-38)

Type—Keel sloop; *LOA*—38′ 2″; *LWL*—26′ 7″; *Beam*—8′; *Draft*—5′ 4″; *Displacement*—11,000 lbs.; *Sail area*—535 sq. ft.; *Berths*—6; *Hull construction*—wood planking; *CCA rating* 29.4; *Insignia on sail*—letter and numeral "K-38" inclosed in an elongated circle; *Principal builder*—Kettenburg, 2810 Carleton St., San Diego 6, Calif.

Kettenburg 40 (K-40)

Type—Keel sloop; *LOA*—40′; *Beam*—10′ 4″; *Draft*—5′ 5″; *Sail area*—611 sq ft.; *Berths*—6; *Hull construction*—wood planking; *Insignia on sail*—letter and numeral "K-40" inclosed in an elongated circle; *Principal builder*—Kettenburg, 2810 Carleton St., San Diego 6, Calif.

Kestrel

Type—Centerboard sloop; *LOA*—22′ 1/4″; *LWL*—16′ 6″; *Beam*—7′ 3/4″; *Draft*—2′ 4″ (board up); *Sail area*—228 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Principal builder*—Seafarer Fiber Glass Yachts, Inc., 100 East 42nd St., New York 17, N. Y. Meets MORC regulations.

King's Cruiser

Type—Auxiliary keel sloop; *LOA*—28′; *LWL*—20′ 11″; *Beam*—7′ 3″; *Draft*—3′ 11″; *Displacement*—5,070 lbs.; *Sail area*—300 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Insignia on sail*—Crown (3 points); *Price range*—new, $8,500 to $9,000; used, $7,500 to $8,500; *Principal builder*—George B. Walton, Inc., P. O. Box 1528, Annapolis, Md. *Association name*—King's Cruiser Association; *Annual dues*—$5.

Over 200 of these beautiful sloops are now sailing United States waters. King's Cruisers race in MORC events, match races and handicap affairs as well as in one-design class races.

Knarr

Type—Keel sloop; *LOA*—30′ 4″; *LWL*—20′ 4″; *Beam*—7′; *Draft*—4′ 3″; *Sail area*—296 sq. ft.; *Berths*—2; *Hull construction*—wood planking; *Insignia on sail*—letter "O" with a bar under it; *Price range*—new, $5,000 to $6,000; used, $2,300 up; *Principal builders*—Westermoen, Mandal,

The Knarr (*left*) and the Triangle 20 (*right*)

Norway; Gjeruldsen, Fevik, Norway; Grimsykilens, Skjeberg, Norway; *Association name and address*—North American Knarr Association, 48 Mt. Hope Avenue, Rochester 20, N. Y.; *Annual dues*—member, $8, associate member, $3.

Active one-design class racing fleets at Toronto, Canada; San Francisco, California; New Orleans, Louisiana; Detroit, Michigan; and Olcott, Rochester and Buffalo, New York. Other fleet nuclei in Texas, Maine, Southern California and on Lake Superior and Chesapeake Bay.

Knickerbocker

Type—Keel sloop; *LOA*—26′ 3″; *LWL*—19′; *Beam*—6′ 7″; *Draft*—4′ 5″; *Sail area*—306 sq. ft.; *Berths*—2; *Hull construction*—fiberglass; *Insignia on sail*—Block letter "K" within circle, white field, black border and letter; *Principal builder*—American Boatbuilding Corp., Warwick, R. I.

This is the new racing class on Long Island Sound and at present is raced as a one-designer.

Lapworth 50 (L-50)

Type—Auxiliary keel sloop; *LOA*—49′ 9″; *LWL*—40′; *Beam*—12′ 6″; *Draft*—6′ 9′; *Sail area*—1,010 sq. ft.; *Berths*—7; *Hull construction*—wood planking; *CCA rating*—39.0; *Price range*—new, $36,000 to $40,000; *Principal builder*—Balboa Marina, 201 East Coast Highway, Newport Beach, Calif.

Lion

Type—Auxiliary keel sloop; *LOA*—35′; *LWL*—25′; *Beam*—8′ 9″; *Draft*—5′ 6″; *Total displacement*—14,200 lbs.; *Sail area*—512 sq. ft.; *Berths*—5; *Hull construction*—teakwood planking; *CCA rating*—21.9; *Insignia on sail*—a lion; *Price range*—new, about $14,000; *Principal builder*—Roland Reed Associates, Inc., 1714 High St., Alameda, Calif.

Long Island 32

Type—Keel sloop; *LOA*—31′ 6″; *LWL*—21′ 6″; *Beam*—10′; *Draft*—3′ 6″ (board up), 6′ (board down); *Sail area*—447 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *CCA rating*—18.3; *Auxiliary power—inboard*—30 hp; *Insignia on sail*—letters and numeral "L132"; *Price range*—new,

about $16,000; *Principal builder*—Harling & Ringstad, 212 Natick St., Staten Island.

Lotus

Type—Keel sloop; *LOA*—28′ 6″; *LWL*—22′ 6″; *Beam*—8′; *Draft*—5′; *Sail area*—393 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—22 hp; *Information*—Sparkman & Stephens, Inc., 79 Madison Ave., New York 16, N. Y.; qualifies for MORC competition.

L-27

Type—Auxiliary keel sloop or yawl; *LOA*—40′; *LWL*—27′; *Beam*—9′ 10″; *Draft*—5′ 5″; *Displacement*—17,500 lbs.; *Sail area*—800 sq. ft. (sloop), 848 sq. ft. (yawl); *Berths*—8; *Hull construction*—molded plywood; *Insignia on sail*—letter and numeral "L27"; *Price range*—new, about $53,000; *Principal builder*—Luders Marine Construction Co., Stamford, Conn.

Malabar Sr.

Type—Keel sloop; *LOA*—33′ 3″; *LWL*—24′ 2″; *Beam*—9′ 9″; *Draft*—5′; *Displacement*—13,000 lbs.; *Sail area*—505 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—25 hp; *Insignia on sail*—Letters "MS" interlocked; *Price range*—new, $27,000 to $30,000.

Manana

Type—Keel sloop; *LOA*—29′ 4½″; *LWL*—19′ 6″; *Beam*—6′ 6″; *Draft*—3′ 11″; *Sail area*—404 sq. ft.; *Hull construction*—fiberglass, wood or wood covered with fiberglass; *Insignia on sail*—Letter "M"; *Price range*—new, about $6,000, used, $3,000 up, kit boats, $1,500 up; *Principal builder*—Falls City Fiberglass, 3284 Taylor Blvd., Louisville 15, Ky.; *Association name*—Manana Association of America.

The Manana is actively raced on the Great Lakes and Gulf of Mexico as a one-design class and in handicap events.

Marlin

Type—Keel sloop; *LOA*—23′; *LWL*—16′ 11″; *Beam*—7′ 2″; *Draft*—3′ 3″; *Sail area*—248 sq. ft.; *Berths*—2; *Hull construction*—fiberglass; *Price*

range—new, about $5,300; *Principal builder*—Cape Cod Shipbuilding Co., Wareham, Mass. Meets MORC regulations.

Maya

Type—Keel sloop; *LOA*—23′; *LWL*—19′ 11″; *Beam*—6′ 7″; *Draft*—4′ 1″; *Displacement*—3,660 lbs.; *Sail area*—249 sq. ft.; *Berths*—3; *Hull construction*—wood planking; *Insignia on sail*—letter "M" in a diamond; *Principal builder*—Balboa Marina, 201 E. Coast Highway, Newport Beach, Calif.; *Association name*—Maya Class Association. Meets MORC regulations.

Very popular West Coast boat, especially in the San Francisco Bay area where it is raced as both a one-design class boat and in MORC events.

Melody 32

Type—Keel or centerboard yawl; *LOA*—32′; *LWL*—21′; *Beam*—8′ 6″; *Draft*—5′ 2″ (keel), 3′ 4″ (board up); *Displacement*—5,500 pounds; *Sail area*—400 sq. ft.; *Berths*—6; *Hull construction*—plywood; *Principal builder*—Surfliner Corp., Lake Wales, Fla.

Melody 34

Type—Keel sloop or yawl; *LOA*—33′ 6″; *LWL*—22′; *Beam*—8′ 7″; *Draft*—4′ 6″; *Displacement*—6,500 lbs.; *Sail area*—349 sq. ft. (sloop), 367 sq. ft. (yawl); *Berths*—6; *Hull construction*—plywood covered with fiberglass; *CCA rating*—23.5 (sloop); *Price range*—new, $12,500 up; *Principal builder*—Surfliner Corp., Lake Wales, Fla.

Mermaid

Type—Keel sloop; *LOA*—20′ 4″; *LWL*—17′ 4″; *Beam*—6′ 3″; *Draft*—3′ 4″; *Displacement*—2,700 lbs.; *Sail area*—215 sq. ft.; *Berths*—4; *Hull construction*—wood clinker; *Insignia on sail*—mermaid; *Price range*—new, about $3,000, used, $2,450 to $3,000; *Principal builder*—Solar Boat Co., 4604 Canyon Rd., Richmond 11, Calif.; *Association name*—San Francisco Bay Mermaid Association; *Annual dues*—$5. Meets MORC requirements.

The Mermaid is raced both as a one-designer and MORC racer in the San Francisco Bay area as well as in Southern California.

Mermaid

Type—Keel or centerboard sloop; *LOA*—24′; *LWL*—19′; *Beam*—7′ 8″; *Draft*—2′ 10″ (keel), 5′ 3″ (board down); *Sail area*—296 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—8 hp; *Information*—Sparkman & Stephens, Inc., 79 Madison Ave., New York 16, N. Y. Meets MORC regulations.

Minuet

Type—Keel sloop; *LOA*—19′ 6″; *LWL*—16′; *Beam*—7′; *Draft*—2′ 6″; *Sail area*—200 sq. ft.; *Berths*—3; *Hull construction*—plywood; *Principal builder*—Harrison Ferrell, 24 Carmen St., Massapequa, N. Y. (kits available).

New Horizons

Type—Centerboard or keel sloop; *LOA*—25′ 3″; *LWL*—21′ 3″; *Beam*—7′ 9″; *Draft*—3′ (keel), 6′ 5″ (board down); *Displacement*—6,030 lbs.; *Sail area*—324 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *CCA rating*—20.3; *Auxiliary power—inboard*—30 hp; *Price range*—new, about $10,000, available in various stages of completion at varying prices; *Principal builder*—Ray Greene & Company, 508 S. Byrne Rd., Toledo 9, Ohio. Meets MORC regulations.

Newporter

Type—Auxiliary keel sloop or ketch; *LOA*—40′; *Beam*—13′; *Draft*—5′; *Sail area*—825 sq. ft.; *Berths*—6; *Hull construction*—plywood fiberglassed; *Principal builders*—Newporter, Inc., 788 W. 16th St., Costa Mesa, Calif.; Stowman Shipbuilding Corp., Dorchester, N. J.

Although a new class, it has a good distance racing record.

Nomad MKII

Type—Centerboard sloop; *LOA*—20′ 9″; *LWL*—19′; *Beam*—7′ 8″; *Draft*—11″ (board up), 4′ (board down); *Displacement*—1,500 lbs.; *Sail area*—280 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Price range*—new, about $3,000, kit boats available; *Principal builder*—Siddons & Sindle, Inc., 15 Central Ave., Island Heights, N. J. Qualifies for MORC events.

Nordfarer

Type—Auxilary keel yawl; *LOA*—41′ 7″; *LWL*—29′ 9″; *Beam*—11′ 1″; *Draft*—6′ 1″; *Sail area*—844 sq. ft.; *Berths*—6; *Hull construction*—teak-wood planking; *Principal builder*—U. S. Yachts, Inc., 195 Hickory Grove, Larchmont, N. Y.

Nordic (see Folksboat)

O'Day Medalist

Type—Keel sloop; *LOA*—32′ 8″; *LWL*—22′ 6″; *Beam*—10′; *Draft*—5′; *Sail area*—458 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Price range*—new, $20,000 to $22,000; *Principal builder*—U. S. Yachts, Inc., 195 Hickory Grove, Larchmont, N. Y.

Ohlson 35

Type—Keel yawl; *LOA*—35′ 6″; *LWL*—25′; *Beam*—9′ 4″; *Draft*—4′ 11″; *Sail area*—545 sq. ft.; *Berths*—5; *Hull construction*—wood planking; *Price range*—new, $18,500 to $20,000; *Principal builder*—U. S. Yachts, Inc., 195 Hickory Grove, Larchmont, N. Y.

Pacific Class (PC)

Type—Keel sloop; *LOA*—32′; *LWL*—22′ 1″; *Beam*—5′ 10″; *Draft*—4′ 6″; *Displacement*—5,000 lbs.; *Sail area*—440 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *CCA rating*—30.6; *Insignia on sail*—letters "PC" within a circle; *Price range*—new, about $9,000; *Principal builder*—Kettenburg, 2810 Carleton St., San Diego 6, Calif.

PC's are raced both as one-designers and in offshore events as handicap craft. It is a very popular West Coast class boat.

Pacific Cruising Class (PCC)

Type—Keel sloop; *LOA*—46′ 5″; *LWL*—32′ 1″; *Beam*—8′ 2″; *Draft*—6′ 6″; *Displacement*—19,000 lbs.; *Sail area*—780 sq. ft.; *Berths*—6; *Hull construction*—wood planking; *CCA rating*—36.3; *Insignia on sail*—letters "PCC" within an elongated circle; *Principal builder*—Kettenberg, 2810 Carleton St., San Diego 6, Calif.

Pacific Clipper (see Frisco Flyer)

Pacific Interclub

Type—Keel sloop; *LOA*—26′ 1″; *LWL*—18′ 3″; *Beam*—6′; *Draft*—4′; *Sail area*—215 sq. ft.; *Berths*—2; *Hull construction*—wood planking; *Insignia on sail*—letters "PIC" in a triangle; *Association name*—Pacific Interclub One-Design Racing Association of San Francisco Bay.

Pilot

Type—Auxiliary keel sloop; *LOA*—35′ 1⅝″; *LWL*—24′ 3″; *Beam*—9′ 6″; *Draft*—4′ 9″; *Sail area*—529 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Insignia on sail*—rectangular field of white with hull number in black and black border; *Price range*—new, $25,000 to $27,500, used, $20,000 to $22,500; *Principal builder*—Henry R. Hinckley & Co., Southwest Harbor, Maine.

The Pilot's racing activity is widespread—West Coast, Great Lakes, Brazil, Argentina and Scandinavia.

Polaris

Type—Centerboard sloop; *LOA*—26′ 3″; *LWL*—19′; *Beam*—7′ 9″; *Draft*—2′ 2″ (board up); *Sail area*—273 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Principal builder*—Seafarer Fiber Glass Yachts, Inc., 100 East 42nd St., New York 17, N. Y.

Princess

Type—Keel sloop; *LOA*—37′; *LWL*—26′ 6″; *Beam*—9′ 5″; *Draft*—5′ 7″; *Sail area*—627 sq. ft.; *Berths*—7; *Hull construction*—teakwood planking; *CCA rating*—24.4; *Auxiliary power—inboard*—30 hp; *Price range*—new, about $25,000; *Principal builder*—Roland Reed Associates, Inc., 1712 High St., Alameda, Calif.

Privateer

Type—Keel sloop *LOA*—18′; *LWL*—17′ 6″; *Beam*—7′; *Draft*—2′ 9″; *Sail area*—215 sq. ft.; *Berths*—2; *Hull construction*—fiberglass; *Price range*—new, about $2,300; *Principal builder*—Bock Boats, Inc., 3600 Summit St., Toledo, Ohio. Meets MORC regulations.

P-28

Type—Auxiliary keel sloop; *LOA*—28′; *LWL*—20′ 7″; *Beam*—7′ 4″; *Draft*—4′ 2″; *Sail area*—335 sq. ft.; *Berths*—4; *Hull construction*—wood; *Price range*—new, $9,000 to $10,500; *Principal builder*—Northwind Trade Corp., P. O. Box 668, San Pedro, Calif.

Ranger

Type—Keel sloop; *LOA*—28′ 6″; *LWL*—20′; *Beam*—8′; *Draft*—3′ 10″; *Sail area*—334 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Price range*—new, $7,000 up; *Principal builder*—Seafarer Fiber Glass Yachts, Inc., 100 East 42nd St., New York 17, N. Y.

Rawson 30

Type—Keel sloop; *LOA*—30′; *LWL*—21′ 7″; *Beam*—9′; *Draft*—4′ 6″; *Sail area*—540 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Insignia on sail*—letter and numeral "R30"; *Price range*—new, about $11,000; *Principal builder*—Ron Rawson, Inc., Lake Washington Shipyards, Houghton, Wash.; *Association name*—Rawson 30 Fleet Association.

Boats actively participating in a full racing schedule of clubs in the Northwest and Puget Sound areas.

Rhodes 33

Type—Keel sloop; *LOA*—33′ 8″; *LWL*—23′ 4″; *Beam*—6′ 10″; *Draft*—5′; *Sail area*—510 sq. ft.; *Berths*—2; *Hull construction*—wood planking; *Insignia on sail*—letter "C" encircling letter "R"; *CCA rating*—29.1; *Price range*—new, about $12,000, used, $7,000 to $8,500; *Principal builder*—South Coast Boats, Inc., Newport, Calif.; *Association name*—Rhodes Class Yacht Racing Association; *Annual dues*—$5.

Over forty of these sloops race actively as a one-design class on the Pacific Coast. International racing is afforded by the existence of fleets on Long Island and the Great Lakes.

Robb 38

Type—Centerboard yawl; *LOA*—38′; *LWL*—25′ 6″; *Beam*—10′ 11″; *Draft*—4′ 3″ (board up); *Sail area*—658 sq. ft.; *Berths*—5 or 6; *Hull construction*—fiberglass or wood planking; *CCA rating*—24.3; *Principal builder*—O'Day Corp., 9 Newbury St., Boston 16, Mass.

S-Class

Type—Keel sloop; *LOA*—27′ 6″; *LWL*—20′ 6″; *Beam*—7½′; *Draft*—4′ 9″; *Displacement*—5,750 lbs.; *Sail area*—425 sq. ft.; *Insignia on sail*—letter "S"; *Association name*—Herreshoff "S" Class Association of Long Island Sound.

Although developed primarily for class racing, it is large enough so that when fitted with berths and a stove, it is quite comfortable on short cruises in protected and coastal waters. The sale of boats by members of the association is restricted by a provision which requires that an owner wishing to sell must give the class an option on his boat for not less than four weeks, during which time the class endeavors to find an acceptable purchaser. Regular racing of the S-class on Long Island Sound and Narragansett Bay.

Seafair

Type—Keel sloop; *LOA*—32′; *LWL*—24′; *Beam*—8′ 3″; *Draft*—5′ 3″; *Displacement*—7,519 lbs.; *Sail area*—477 sq. ft.; *CCA Rating*—27.4; *Principal builder*—Monson Boat Co., 3133 Fairview North, Seattle, Wash.

Seafarer 45

Type—Keel sloop or yawl; *LOA*—45′ 1″; *LWL*—30′ 4½″; *Beam*—11″; *Draft*—6′ 5″; *Sail area*—898 sq. ft. (sloop), 941 sq. ft. (yawl); *Berths*—8; *Hull construction*—fiberglass; *CCA rating*—31.8 (for yawl); *Principal builder*—Seafarer Fiber Glass Yachts, Inc., 100 East 42nd St., New York 17, N. Y.

Sea Hawk

Type—Keel sloop; *LOA*—21′; *LWL*—16′; *Beam*—7′; *Draft*—2′ 3″; *Displacement*—2,250 lbs.; *Sail area*—180 sq. ft.; *Berths*—4; *Hull construction*—plywood; *Price range*—new, about $4,500; *Principal builder*—Silhouette Marine, Ltd., 150 Spring St., New York 12, N. Y. Meets MORC regulations.

Sea Horse

Type—Keel yawl; *LOA*—24′; *LWL*—20′; *Beam*—7′ 1″; *Draft*—4′; *Sail area*—301 sq. ft.; *Hull construction*—plywood; *Price range*—new, about

$6,000; *Principal builder*—Nichols Boat Works, 88 Jack London Square, Oakland, Calif.

Sea Rover

Type—Keel sloop; *LOA*—17′ 3″; *LWL*—13′; *Beam*—6′ 8″; *Draft*—1′ 6″; *Displacement*—1,100 lbs.; *Sail area*—140 sq. ft.; *Hull construction*—fiberglass; *Price range*—new, about $2,600; *Principal builder*—Silhouette Marine, Ltd., 150 Spring St., New York 12, N. Y. Meets MORC regulations.

Sea Sprite

Type—Keel sloop; *LOA*—22′ 6″; *Beam*—7′; *Draft*—3′ 1″; *Sail area*—246 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Price range*—new, $4,000 to $4,200; *Principal builder*—Bėttle Boat Co., Inc., East Greenwich, R. I. Meets MORC regulations.

Sea Witch

Type—Keel or centerboard/keel sloop; *LOA*—22′; *LWL*—18′; *Beam*—7′; *Draft*—2′; *Displacement*—2,800 lbs.; *Sail area*—180 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Price range*—new, $4,000 to $5,500; *Principal builder*—Midget Yachts, Inc., 1441 Broadway, New York 18, N. Y. Meets MORC regulations.

Shaw 24

Type—Centerboard/keel yawl; *LOA*—23′ 11½″; *LWL*—18′ 6½″; *Beam*—7′ 5½″; *Draft*—2′ 9″ min.; *Displacement*—4,303 lbs.; *Sail area*—289 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Principal builder*—Vater Oy, Et. Ranta 10, Helsinki, Finland. Meets MORC regulations.

Shelter Island 33

Type—Keel sloop; *LOA*—33′ 4″; *LWL*—25′; *Beam*—10′ 3″; *Draft*—5′ 6″; *Displacement*—9,200 lbs.; *Sail area*—455 sq. ft.; *Berths*—4 or 6; *Hull construction*—wood planking; *CCA rating*—23.5; *Principal builder*—Shelter Island Boat Yard, Inc., Shelter Island, N. Y.

Schock 22

Type—Centerboard/keel sloop; *LOA*—22′; *LWL*—20′; *Beam*—7′ 6″; *Draft*—2′ 1″ (board up), 4′ (board down); *Displacement*—1,900 lbs.; *Sail area*—241 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *Price range*—new, $4,750 to $6,000; *Principal builder*—W. D. Schock Co., 18141 Greenville Rd., Santa Ana, Calif. Meets MORC requirements.

Sierra

Type—Keel sloop; *LOA*—26′; *LWL*—20′; *Beam*—7′; *Draft*—4′ 9″; *Displacement*—3,558 lbs.; *Sail area*—283 sq. ft.; *Hull construction*—wood planking; *CCA rating*—22.4; *Principal builder*—Monson Boat Co., 3133 Fairview North, Seattle, Wash.

Silhouette 23

Type—Keel sloop; *LOA*—23′; *LWL*—17′ 6″; *Beam*—8′; *Draft*—3′; *Displacement*—3,550 lbs.; *Sail area*—230 sq. ft.; *Hull construction*—wood planking; *Principal builder*—Silhouette Marine, Ltd., 150 Spring St., New York 12, N. Y. Meets MORC requirements.

Sou'wester Jr.

Type—Keel sloop; *LOA*—30′ 3″; *LWL*—22′; *Beam*—8′ 9″; *Draft*—4′ 7″; *Displacement*—9,500 lbs.; *Sail area*—397 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *CCA rating*—18.5; *Auxiliary power—inboard*—4 hp; *Principal builder*—Henry R. Hinckley & Co., Southwest Harbor, Maine.

The Sou'wester Jr. has proved itself a contender to be reckoned with in blue-water races. With a low Cruising-Club-of-America rating, it had a four-hour handicap over its nearest rival in the recent Long Island Sound race, and was the first boat across the finish line.

Spaulding 33

Type—Keel sloop; *LOA*—33′ 4″; *LWL*—24′; *Beam*—9′; *Draft*—5′ 5″; *Displacement*—10,500 lbs.; *Sail area*—440 sq. ft.; *Berths*—4; *Hull construction*—plywood; *CCA rating*—23.9; *Insignia on sail*—letter and numeral "S-33"; *Information*—Myron Spaulding, Gate 5 Marinship, Sausalito, Calif.; *Association name*—Spaulding Class Association; *Annual dues*—$5.

Spaulding 33's are most popular in the San Francisco Bay area where

The Hinckley 36 (*left*) and the Tavana (*right*)

they are raced as a class and with other boats in handicap events. Some of these boats are amateur-built since the simplicity of design makes it possible for an amateur to build a perfectly balanced sturdy yacht at a minimum of expense.

Swiftsure

Type—Centerboard sloop; *LOA*—33′ 1/2″; *LWL*—22′ 11″; *Beam*—10′; *Draft*—3′ 6″ (board up); *Sail area*—510 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *CCA rating*—22.5; *Insignia on sail*—letters "RS"; *Price range*—new, $17,500 to $19,500; *Principal builder*—Seafarer Fiber Glass Yachts, Inc., 100 East 42nd St., New York 17, N. Y.

Swiftsure

Type—Keel sloop; *LOA*—40′; *LWL*—30′; *Beam*—8′ 8″; *Draft*—6′ 3″; *Displacement*—16,000 lbs.; *Sail area*—674 sq. ft.; *CCA rating*—32.9; *Insignia on sail*—likeness of lightship "Swiftsure."

Tartan 27

Type—Keel/centerboard sloop or yawl; *LOA*—27′; *LWL*—21′ 5″; *Beam*—8′ 7″; *Draft*—3′ 2″; *Sail area*—372 sq. ft. (sloop), 394 sq. ft. (yawl); *Berths*—5; *Principal builder*—Douglass & McLeod, Inc., Painesville, Ohio.

Tavana

Type—Centerboard sloop or yawl; *LOA*—33′; *LWL*—26′; *Beam*—10′; *Draft*—3′ 2″ (board up); *Sail area*—490 sq. ft. (sloop); *Berths*—4; *Hull construction*—fiberglass and wood; *Insignia on sail*—letters "T" inside "C"; *CCA rating*—24.2; *Price range*—$3,000 for hull kit to $15,000 for completed boat; *Principal builder*—Glander Boats, Inc., 5960 S.W. 78th St., South Miami 43, Fla.

Teak Lady

Type—Keel sloop; *LOA*—17′ 3″; *Beam*—6′; *Draft*—3′ 6″; *Sail area*—163 sq. ft.; *Berths*—2; *Hull construction*—teakwood planking; *Insignia on sail*—Chinese letters "TL"; *Principal builder*—A. King Slipway, Hong Kong, China.

Temptress

Type—Keel sloop; *LOA*—32′; *LWL*—22′; *Beam*—8′ 6″; *Draft*—4′ 6″; *Displacement*—10,000 lbs., *Sail area*—418 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—25 hp; *Insignia on sail*—letter "T" within a circle; *CCA rating*—21.1; *Principal builder*—Reisinger Marine Sales Co., Tappahannock, Virginia.

Thunderbird

Type—Keel sloop; *LOA*—26′; *LWL*—20′; *Beam*—7′ 6″; *Draft*—4′ 9″; *Sail area*—292 sq. ft.; *Hull construction*—plywood or plywood covered with fiberglass; *Price range*—new, about $5,000, designed for amateur to build—plans available from Douglas Fir Plywood Assocation, 1119 A St., Tacoma 2, Wash.; *Principal builder*—National Marine Co., Bridgeway at Pine St., Sausalito, Calif.

Totem 21

Type—Keel/centerboard sloop; *LOA*—21′; *LWL*—18′ 9″; *Beam*—7′ 6″; *Draft*—2′ (board up), 5′ (board down); *Sail area*—342 sq. ft.; *Berths*—4; *Hull construction*—fiberglass; *CCA rating*—19.9; *Insignia on sail*—stylized thunderbird with numeral "21" in his feet; *Price range*—new, about $4,000; used, $3,000; *Principal builder*—Marine Fiber-Glass & Plastics, Inc., 6707 220th SW, Mountlake Terrace, Washington; *Association name*—Totem-21 Yacht Racing Association; *Annual dues*—$5.

Totem 21's are increasing in popularity in the Pacific northwest, especially in the Puget Sound Area, were they are actively raced as a one-design class.

Treasure Island

Type—Keel sloop; *LOA*—21′ 6″; *LWL*—16′ 4″; *Beam*—5′ 10″; *Draft*—3′ 8″; *Sail area*—185 sq. ft.; *Berths*—2; *Hull construction*—plywood or plywood covered with fiberglass; *Insignia on sail*—letters "TIS"; *Price range*—new, $3,500 to $4,250; *Principal builder*—Nichols Boat Works, 88 Jack London Sq., Oakland Calif.; *Association name*—Treasure Island Sloop Association.

Triangle 20

Type—Keel/centerboard sloop; *LOA*—20′ 6″; *LWL*—16′ 8″; *Beam*—7′ 1″; *Draft*—2′ 2″ (board up); *Displacement*—2,300 lbs.; *Sail area*—224 sq. ft.; *Berths*—2; *Hull construction*—fiberglass or wood planking; *Insignia on sail*—numeral "20" within a triangle; *Price range*—new, $3,500 to $4,500; *Principal builder*—Triangle Marine Co., 5395 St. Paul Blvd., Rochester 17, N. Y.; *Association name*—Triangle 20 Association; *Annual dues*—$5. Meets MORC regulations.

Although Triangle 20's can take part in MORC events, the majority race as a one-design class. Regional regattas and a national championship are held.

Tripp 30

Type—Keel sloop or yawl; *LOA*—30′ 4″; *LWL*—20; *Beam*—8′ 6″; *Draft*—4′ 6″; *Sail area*—370 sq. ft. (sloop); *Berths*—4; *Hull construction*—fiberglass; *CCA rating*—19.5 (sloop); *Auxiliary power—inboard*—30 hp; *Principal builder*—Seafarer Fiber Glass Yachts, Inc., 100 East 42nd St., New York 17, N. Y.

Triton

Type—Keel sloop or yawl; *LOA*—28′ 6″; *LWL*—20′ 6″; *Beam*—8′ 3″; *Draft*—4′; *Displacement*—6,930 lbs.; *Sail area*—371 sq. ft. (sloop), 382½ sq. ft. (yawl); *Berths*—4 to 6; *Hull construction*—fiberglass; *CCA rating*—20.6 (sloop), 20.3 (yawl); *Price range*—new, $10,000 to $13,000, used, $10,000; *Principal builder*—Pearson Corp., 1 Constitution St., Bristol, R. I.; *Association name*—Triton Association of Long Island Sound; *Annual dues*—active, $15, associate, $5. Meets MORC regulations.

Tritons have a very active racing schedule as one-designers and handicap craft on Long Island Sound and their popularity is spreading rapidly in the East.

Tylercraft 22

Type—Keel sloop; *LOA*—22′; *LWL*—19′; *Beam*—7′ 6″; *Draft*—2′; *Sail area*—216 to 284 sq. ft.; *Berths*—2 to 4; *Hull construction*—fiberglass; *Price range*—new, $3,100 to $3,800; *Principal builder*—Tylercraft, Inc., Montauk Hwy., Oakdale, N. Y. Meets MORC requirements.

Victor

Type—Keel or centerboard sloop; *LOA*—28′; *LWL*—20′; *Beam*—7′ 10″; *Draft*—3′ 9″ (keel), 2′ 9″ (board up), 5′ 7″ (board down); *Displacement*—4,300 lbs.; *Sail area*—308 sq. ft.; *Berths*—2 to 4; *Hull construction*—wood planking; *Auxiliary power—inboard*—22 hp; *Price range*—new, $7,250 to $8,000; *Principal builder*—Holiday Yachts, Inc., P. O. Box 227, Centerport, N. Y. Meets MORC requirements.

Viking

Type—Keel sloop; *LOA*—31′ 5″; *LWL*—24′; *Beam*—8′ 10″; *Draft*—4′ 5″; *Displacement*—11,500 lbs.; *Sail area*—500 sq. ft.; *Berths*—4; *Hull construction*—molded plywood; *Principal builder*—Luders Marine Construction Co., Stamford, Conn.

Vitesse 30

Type—Keel sloop; *LOA*—30′; *LWL*—24′; *Beam*—8′; *Draft*—4′ 8″; *Sail area*—357 sq. ft.; *Berths*—5; *Hull construction*—fiberglass; *Price range*—new, about $10,000; *Principal builder*—Van Breems International Corp., Seaview Ave., Stamford, Conn.

Vitesse 36

Type—Centerboard yawl; *LOA*—36′; *LWL*—25′ 2″; *Beam*—10′ 6″; *Draft*—3′ 8″ (board up); *Sail area*—575 sq. ft.; *Berths*—6; *Hull construction*—fiberglass; *Price range*—new, $21,000 to $24,000; *Principal builder*—Van Breems International Corp., Seaview Ave., Stamford, Conn.

Vitesse 40

Type—Centerboard yawl; *LOA*—40′; *LWL*—27′ 6″; *Beam*—11′ 9″; *Draft*—3′ 11″ (board up); *Sail area*—752 sq. ft.; *Berths*—7; *Hull construction*—fiberglass; *CCA rating*—27.3; *Price range*—new, $36,000 to $40,000; *Principal builder*—Van Breems International Corp., Seaview Ave., Stamford, Conn.

Voyager 33

Type—Keel sloop; *LOA*—33′; *LWL*—25′ 6″; *Beam*—9′ 8″; *Draft*—6′; *Displacement*—16,000 lbs.; *Sail area*—485 sq. ft.; *Berths*—5; *Hull con-*

struction—wood planking; *Insignia on sail*—numeral "33" within letter "V"; *Price range*—new, about $18,500; used, about $15,000; *Principal builder*—Godtfredsen's Boat Shop, 145 3rd St., San Rafael, Calif.; *Association name*—Voyager Class Association.

Voyager 33's are raced in the San Francisco Bay area as one-designers and handicap boats.

Warner 33

Type—Keel sloop; *LOA*—33′; *LWL*—29′ 6″; *Beam*—10′ 3½″; *Draft*—4′ 5½″; *Sail area*—502 sq. ft.; *Berths*—5; *Hull construction*—wood planking; *Price range*—new, $25,000 to $30,000; used, $17,000 to $25,000; *Principal builders*—Morse Boatbuilding Co., Thomaston, Maine; Dauntless Shipyard, Essex, Conn.

Popular handicap boat in the Boston-Marblehead area.

Windward

Type—Keel sloop; *LOA*—33′ 6″; *LWL*—24′; *Beam*—8′ 6″; *Draft*—5′ 8″; *Sail area*—486 sq. ft.; *Berths*—4; *Hull construction*—wood planking; *Auxiliary power—inboard*—25 hp; *Insignia on sail*—letter "W" with an arrow through it; *Association name*—Windward Class Association.

Yankee

Type—Keel sloop; *LOA*—30′ 6″; *LWL*—24′; *Beam*—6′ 6″; *Draft*—4′ 6″; *Sail area*—312 sq. ft.; *Berths*—2; *Hull construction*—wood planking; *Insignia on sail*—letter "Y"; *Principal builder*—W. F. Stone & Son, 2517 Blanding Ave., Alameda, Calif.; *Association name*—Yankee One-Design Racing Association.

On the Pacific coast, the Yankee is raced in both one-design class and handicap events.

	Keel or Center-board	Type	LOA	Beam	Draft	Hull Mat'l.	Berths	Sail Area in Square Feet
Adventurer	K	S	24′	7′ 6″	4′ 3″	W	2	244
Alongshore	K	Cu	28′ 9″	8′ 2″	4′ 8″	W	4	380
Alpha	K	S	28′	8′ 10″	4′	W	4	400
Amethyst	K	S	28′ 6″	8′ 2″	5′ 2″	W	5	405
Arcoa 520	K	S	17′ 1″	7′ 3″	1′ 6″	W	2	151
Bahama	K	S	35′	10′ 6″	4′ 6″	F	6	484
Barnacle	K	S	34′	8′ 6″	5′ 4″	W	6	531
Barnegat Bay Catboat	CB	C	23′ 10″	10′	2′	W	2	470
Bay Bird	K	S	30′	6′	5′	W	4	397
Bermuda One-Design	K	S	29′	6′ 1″	5′	W	4	396
Blue Quill	K	S	24′	8′ 7″	4′ 1″	F	4	276
Bon Voyager	K	S	27′	8′ 10″	4′ 4″	W	4	445
Bounty	K	S	38′ 9″	9′ 8″	5′ 8″	W	4	635
Brunswick Mariner 22	K	S	31′ 1″	7′ 6″	5′ 6″	W	4	470
Buzzards Bay M–B	K	S	29′ 3″	6′ 6″	4′ 4″	W	—	400
Buzzards Bay 30 Sq. Meter	K	S	39′	6′ 10″	4′ 6″	W	6	322
California Cruising Club Class	K	S	25′	8′ 6″	4′	W	4	350
Caller	K	S	27′ 6″	8′ 6″	4′ 6″	W	3	365
Calypso	CB	Ke	44′ 8″	12′ 6″	4′ 3″*	St	7	673
Cambridge cadet	K	S	28′ 7″	8′ 7″	4′ 10″	W	4	405
Cape cod Catboat (see Sea Cat)								
Cape Horn (see Le Cape Horn)								
Caravel	K	S	22′ 10″	7′ 5″	3′	W	4	228
Casey 40	K	S	40′	10′ 6″	4′ 6″	W	6	995
Casey 31	K	S	31′	8′ 6″	4′	W	4	—
Casey 36	K	S	36′	9′ 6″	6′	W	6	510
C.C.C. Class	K	S	25′	8′ 7″	4′ 6″	W	4	320
Challenger	K	S	29′	9′ 4″	6′	W	4	365
Chespeake One-Design	K	S	34′	7′ 9″	5′ 3″	W	6	444
Clipper	K	S	32′	10′ 6″	4′ 6″	W	4	464
Cinderella	CB	Y	38′ 6″	11′	4′*	F	6	670
Coastal Cruiser	K	Cu	36′ 6″	6′ 6″	4′ 9″	W	6	536
Coast Cruiser	K	S	25′	8′	3′ 2″	W	4	295
Coaster 25	K	S	25′					
Coast Knockabout	K	S	26′	6′ 6″	4′	W	4	286
Coaster 32	K	S	32′					
Coastwise Cruiser	K	S	36′ 6″	9′ 9″	5′ 2″	W	4	585
Cohasset 21	K	S	32′	8′	5′ 6″	W	2	300
Coleman Bounty	K	S	38′ 9″	9′ 8″	5′ 10″	W	4	638
Columbia	K	S	28′ 6″	8′	4′	F	4	400
Concordia 41	K	S	41′	10′ 3″	5′ 10″	W	4	710
Concordia 25	K	S	31′ 3″	9′ 4″	5′	W	4	538
Concordia Yawl	K	Y	39′ 10″	10′ 3″	5′ 8″	W	4	650
Controversy 26	K/CB	S	25′ 11″	8′ 3″	2′ 6″	W	4	292
Controversy 27	K/CB	S	27′ 2″	7′ 11″	2′ 10″	F	4	316
Controversy 28	K/CB	S	28′ 5″	8′ 6″	3′ 4″	W	6	330
Controversy 30	K	S	31′ 2″	8′ 5″	3′ 4″	W	6	374
Controversy 36	K	Y	37′ 1″	10′ 1″	5′ 4″	W	8	520
Corinthian	K	Y	39′ 6″	9′ 9″	5′ 9″	W	4	675
Corsair Jr.	K	S	22′	7′ 3″	3′ 7″	W	2	327
Corsair Sr.	K	S	28′	9′	4′ 7″	W	4	400
Corsair 32	CB	S	32′	9′ 6″	4′ 2″	W	4	550
Corsair 35	K	Y	35′	10′	5′ 2″	W	5	650
Creekmore 36	K	S						
Crod Class	K	S	28′	8′ 9″	2′ 4″	W	3	344
Cruisken	K	S	29′ 8″	8′ 9″	3′ 9″	W	4	—

	Keel or Center-board	Type	LOA	Beam	Draft	Hull Mat'l.	Berths	Sail Area in Square Feet
Crusailer	K	S	41′	11′ 7″	5′	W	6	713
C-30	K	S or Y	30′ 6″	8′	4′	W	6	400
Coquette	K	S	25′ 5″	7′	3′ 11″	W	4	290
Crescent	K	S	24′	7′	4′ 1″	F	2	298
Dark Harbor	K	S	30′	6′ 6″	4′ 2″	W	4	340
Dater	K	S	20′ 6″	7′ 6″	3′ 8″	W	2	222
Debutante	K	S	26′ 6″	7′ 2″	3′ 10″	W	2 or 4	240
Delta	K	S	25′ 6″	7′ 10″	3′ 7″	W	4	253
Dickerson	K	S	26′ 6″	8′ 6″	3′	W	4	346
Dobson 25	CB	S	25′	4′ 6″	3′ 4″*	W	2	310
Duchess	K	S	26′	6′ 8″	—	A	2	333
Dutch Main	K	S	30′	8′ 7″	4′ 4″	W	4	295
Duxbury	K	S	29′ 2″	8′ 3″	3′ 6″	W	4	391
Duxbury One-Design	K/CB	S	26′ 9″	7′	3′	W	2	360
Eagle	K	S	29′ 1″	6′ 8″	4′ 8″	W	3	439
Eastern Interclub	K	S	35′	7′ 2″	5′	W	2	450
Eastward Ho Jr.	K	S	23′ 5″	8′ 8″	3′ 10″	W	4	250
Eastward Ho Sr.	K	S	30′	9′ 1″	3′ 6″	W	4	404
Explorer	CB	S	26′	9′	5′*	W	4	317
Explorer	K	Cu	37′ 5″	10′ 11″	3′ 8″	W	6	614
Explorer	K/CB	KE	40′	11′ 2″	2′ 8″*	W	7	615
Falcon	K	S	33′	8′ 8″	4′ 10″	W	4	462
Feria	K	S	28′	27′ 11″	4′ 11″	W	4	333
Fifty-Fifty 32	K	S	32′	10′	3′ 8″	W	6	450
Fifty-Fifty 38	K	S	38′	12′	4′ 2″	W	6	550
Finnish Class	K	S	31′ 5″	6′ 5″	3′ 8″	W	4	310
Fishers Island 31	K	S	43′ 6″	10′ 9″	6′	W	6	950
510	K	S	44′ 8″	6′ 7″	6′	W	—	519
Four-sum	K	S	28′	8′ 6″	4′ 6″	W	4	378
Fox	K	S	39′	9′	5′	W	4	600
Georgetown 25	K	S	25′	7′ 2″	3′ 11″	W	4	295
Georgetown 30	K	S	30′	8′ 2″	4′ 3″	W	4	395
Great Dane	K	S	25′ 1″	7′ 2″	3′ 10″	W	2 or 4	230
Great Dane Jr.	K	S	18′ 7″	5′ 8″	2′ 10″	W	2	162
Great Lakes 30	K	S	43′	9′	6′ 3″	W	6	600
Holiday 31	K	S	31′					
Greenwich Bay Cutter	K	Cu	28′	9′ 6″	4′ 9″	W	3	512
Gulf Coast 40	CB	Y	40′	—	—	F	6	—
Gulf Stream 36	K	S	37′	10′	4′ 7″	W	6	599
Gulf Stream 38	CB	S	38′ 6″	11′ 3″	3′ 8″*	W	8	713
Gulf Stream 42	K	Y	41′ 6″	11′	6′ 3″	A	8	784
Gypsy	CB	S	19′ 3″	6′ 6″	6″*	W	2	173½
Halfhander	CB	S	23′	7′ 2″	3′ 10″*	W	2	—
Hankosloop	K	S	36′	9′ 6″	5′ 5″	W	4	550
Herreshoff Double Ender	K	Ke	30′ 9″	8′	4′ 6″	W	4	333
Herreshoff Meadow Lark	CB	Ke	33′	8′	1′ 6″	W	4	475
Herreshoff 31	K	S	43′ 6″	8′ 9″	6′ 6″	W	6	1100
Herreshoff-28	K	S or Ke	28′	9′	3′ 6″	W	4	400
Herreshoff 23	K	S	33′	7′	4′ 6″	W	4	350
Hinckley 32	K	S/Y	45′ 9″	11′ 2″	6′ 8″	W	6	—
Hinckley 28	K	S/Y	40′ 9″	10′	5′ 9″	W	4	—
Hinckley 21	K	S	28′ 6″	8′	4′ 7″	W	2	—
Hinckley 36	K	S/Y	36′	9′ 4″	5′ 1″	W	4	524***
Holland 25	K	S	24′ 9″	7′ 3″	3′ 6″	W	4	218
Honeymoon	K	S	23′ 10″	6′ 5″	3′ 7″	W	2	220
H-28	K	Ke	28′	8′ 9″	3′ 6″	W	4	343

	Keel or Center-board	Type	LOA	Beam	Draft	Hull Mat'l.	Berths	Sail Area in Square Feet
Huntress	K	S	37′ 4″	6′ 3″	4′ 6″	W	6	360
International 600	K	S or Y	36′	10′	5′	W	6	641
Island Clipper	K	S	44′ 3″	9′ 6″	6′ 6″	W	8	715
Island Creek 25	CB	S	25′	7′ 9″	3′ 3″	W	2	250
Islander 24	K	S	24′	7′ 10″	3′ 10″	W	4	294
Islander 30	K	S	30′	9′	4′ 3″	W	4	420
Islander 34	K	S	34′ 6″	10′ 7″	5′ 2″	W	6	599
Islesboro	K	S	30′	6′ 8″	4′ 2′	W	4	350
Kappa Class	K	Y	35′	10′	4′ 9″	W	4	590
Kreutzer Class	K	S	30′	8′ 2″	4′ 4″	W	4	434
K-35	K	S	35′	9′ 10″	5′	W	6	610
K-37	K	S	37′	8′ 4″	5′ 3″	W	4	479
K–38	K	S	38′	8′	5′ 2″	W	4	538
Lake One-Design	K	S	34′	7′ 9″	5′ 3″	W	3	444
Lapworth 24	K	S	24′	7′ 6″	4′	F	4	300
Larchmont "O" Class	K	S	59′ 10″	12′	7′ 10″	W	—	1704
Larsen Jr.	K	S	22′	7′	3′ 7″	W	2	247
Larsen Sr.	K	S	28′	8′ 10″	4′ 7″	W	4	387
Larsen 32	K	S	32′	9′ 10″	5′	W	4	500
Larsen 36	K	S	36′ 1″	10′ 6″	5′ 2″	W	6	600
Laurel	K	S	39′ 10″	8′ 9″	6′	W	5	520
Leeward	CB	S	19′	7′	1′ 8″	W	2	—
Le Cape Horn	CB	S	21′ 4″	7′ 1″	2′ 2″*	W	4	—
Little Sister	K	S	27′ 2″	8′ 2″	4′ 2″	W	2	349
L–40	K	S	39′ 11″	10′ 6″	5′ 6″	W	5	690
L–36	K	S	36′					
L-24	K	S	38′ 3″	6′ 3″	4′ 10″	W	2	400
Mackinac	K	S	40′	10′	5′ 11″	W	6	690
Maine Coast 36	K	Y	37′	9′ 8″	6′ 2″	W	5	—
Malabar Jr.	K	S	32′ 3″	8′ 8″	4′ 11″	W	4	476
Malabar 36	K	S or Y	36′	9′ 9″	5′	W	6	571
Manchester 18	K	S	31′	6′	4′ 6″	W	2	520
Marco Polo Class	K	Sc	55′	10′	5′ 6″	W	8	819
Mariner	K	S	36′	9′ 3″	5′ 3″	—	—	—
Melody 34G	K	S or Y	34′	11′	4′ 6″	F	6	467
Melody 40	K	Y	40′	10′ 9″	5′	W	7	550
Mercer	CB	S	44′	11′ 9″	4 3″*	F	7	884
Meridian	K	S	24′ 9″	7′	3′ 3″	F	4	274
Merryboat	K	S	19′ 2″	7′	2′ 10″	W	2	164
Mid-Pacific Class	K	S						
Mills 24	CB	S	24′	7′ 6″	9′*	W	4	250
Minneford 23	CB	S	23′	7′	4′ 9″*	W	2	261
Musketeer	K	S or Y	40′ 8″	9′ 11″	5′ 11″	W	7	709
New Bedford 35	K	S	35′	9′ 6″	5′ 6″	W	4	569
New Bedford 29	K	S	29′	8′	4′ 7″	W	2	386
New Weekender	K	S	39′	9′ 9″	5′ 10″	W	4	660
New York 30	K	S	43′ 7″	8′ 9″	6′ 5″	W	4	1100
New York 32	K	S	45′ 4″	10′ 7″	6′ 6″	W	6	950
Nimrod	K	S	45′	11′ 1″	6′ 8″	W	8	1137
Norge	K	S	22′	7′ 3″	3′ 7″	W	2	247
Norsaga	K	S	32′ 5″	8′ 6″	4′ 8″	W	4	485
Norseman	K	S	30′ 4″	7′ 9″	4′ 4″	W	4	435
North East Harbor (Class A)	K	S	27′ 9″	7′ 3″	4′ 6″	W	2	380
North East Harbor (Class E)	K	S	26′	6′ 6″	4′ 6″	W	2	232
Northporter	K	S	23′	8′ 6″	3′ 6″	W	2	275
Norvega	K	S	27′ 6″	7′ 6″	4′ 3″	W	4	300

Offshore	K	S	25′	9′ 2″	3′	W	4	339
Off Sounding Class	K	Y	42′ 2″	10′ 6″	5′ 10″	W	5	903
Ohlson 26	K	S	26′	8′	4′ 1″	W	4	359
Over-Nite	K	S	30′	8′ 6″	4′ 6″	W	3	420
Owens Cutter	K	Cu	40′ 6″	10′ 6″	5′ 10″	W	4	862
Oxford 400	K	S	29′	8′ 4″	4′ 6″	W	3	400
Pacific 22 Sq. Meter	K	S	36′	6′	4′ 4″	W	4	—
Pennant 24	K	S						
Pennant 25	K	S	25′	7′ 10″	3′ 5″	W	4	320
Peoples Boat	K	S						
Picnic	CB	S	17′ 3″	6′ 8″	1′	F	3	187
Pied Piper	K/CB	S	26′ 8″	8′ 8″	2′ 11″	W	4	311
Pilot	K	S	33′	9′ 6″	4′ 9″	W	6	495
Priscilla	K	S	30′	8′ 6½″	4′ 3″	W	4	391
Privateer	K	S	35′	8′ 10″	5′ 3″	W	6	522
Prudence	K	S	23′	8′	3′	W	2	293
Q Class	K	S	53′	8′ 9″	6′ 9″	W	—	890
Quadrant	K	S	25′ 7″	8′ 6″	3′ 9″	W	4	300
Quicksilver	CB	S	42′	11′	3′	W	4	600
Quincy Adams 17	K	S	26′ 6″	6′	4′ 6″	W	2	253
Raider	K	S	42′	11′ 9″	6′	A	6	726
Ranger	K	S	38′ 6″	10′ 6″	3′ 10″	W	6	655
R Class	K	S	38′	7′	5′ 9″	W	—	590
Rhodes 27	K	S	39′ 2″	9′ 9″	5′ 9″	W	4	635
Robinhood	K	Ke	42′	13′	5′ 6″	F	6	851
Rocket	C	S	23′	7′	1′ 6″*	W	2	529
Roué	K	S	20′	8′ 6″	5′	W	4	480
Royal 30	K	S	30′ 4″	8′ 7″	4′ 4″	W	4	340
S-28	K	S	28′	7′	4′ 4″	F	4	329
Sea Cat	CB	C	18′ 9″	8′ 9″	2′*	F	2	165
Sea Dream	K	S	25′	8′ 6″	4′ 6″	F	4	375
Seafarer	K	S	25′	7′ 9″	4′	W	4	344
Seagoer	K	Ke	44′	11′ 4″	5′ 1″	W	6	777
Seagull	CB	S	18′ 6″	6′ 9″	1′ 5″*	W	2	825
Seaman 27	K	S	27′	8′ 6″	4′ 3″	W	4	360½
Seaman 30	K	S	30′	8′ 6″	4′ 3″	W	4	424
Sea Rover	K	S	30′	10′	5′ 4″	W	4	420
Sea Spray	K	S	21′	6′ 2″	3′ 8″	F	2	225
Seawanhaka Schooner	K	Sk	58′ 6″	12′	7′ 6″	W	—	1413
Seawind	K	K	30′ 6″	9′ 3″	4′ 4″	F	4	—
Sharpie Class	K	Ke	25′					
Shelter Island 26	K	S	26′	6′ 10″	4′	W	4	330
Shelter Island 31	K	S	31′	11′	3′	W	4	425
Silhouette Mark II	K	S	17′ 8″	6′ 7″	1′ 8″	W	2	140
Silver Spray	K	S	23′ 5″	8′ 8″	3′ 10″	W	4	250
Single-Hander	K	S	35′	8′ 6″	5′ 3″	W	4	480
Siren	K	S	30′	9′	3′	W	4	350
Sisu	K	S	24′ 7″	7′ 7″	4′ 3″	W	4	330
Skylark	K	Y	22′ 1″	7′ 6″	3′	W	2	312
Sojourner	K	S	32′ 10″	10′ 3″	4′ 6″	F	4	499
Sound Clipper	K	S	24′	8′ 1″	3′ 2″	W	4	335
Sound Interclub	K	S	28′ 6″	7′ 9″	4′ 7″	W	2	408
Southern California Class	K	S	30′ 1″	7′ 8″	5′ 2″	W	—	370
Sou' Wester Sr.	K	S	38′	10′ 3″	5′	W	6	654
Soverel 28	CB	S	28′	8′ 4″	4′ 6″*	F	4	347
Squarehead Class	K	S	20′ 6″	7′ 9″	3′	W	2	175

Stadel 24	K	S	24′ 4″	8′ 1″	3′ 7″	W	2	280
Stone Horse Junior	K	S	22′ 8″	7′	2′ 6″	W	2	243
Stone Horse Senior	K	S	33′	10′ 2″	4′	W	4	537
Stout Fella Junior	K	S	23′ 4″	7′ 4″	3′ 6″	W	2	247
Stout Fella Senior	K	S	26′ 8″	7′ 4″	3′ 10″	W	4	301
Stout Fella 33	K	S/Y	33′	8′ 6″	4′ 6″	W	2	455***
Sunset	K	S	34′	8′	5′ 3″	W	4	407
Swallow	K	S	23′	6′ 4″	3′ 8″	W	2	233
Temperance	K	S	33′ 3″	10′	5′	W	3	503
Three Sisters Class	K	S	26′ 6″	9′ 2″	5′	W	2	448
Tiger V	K	S	23′	7′	4′	W	2	214
Timber Point	K	S	22′ 4″	7′ 6″	3′	W	2	247
Tom Cod	K	S	20′	7′ 4″	3′ 2″	W	2	200
Topaz	K	S	29′	8′ 2″	5′ 2″	F	5	470
Toppan Twosome	K	S	23′ 3″	7′ 6″	3′ 6″	W	2	281
Traveler 22	K/CB	S	22′ 3″	7′ 1″	2′ 10″	F	2	228
Triangle Class	K	S	28′ 6″	7′ 6″	4′ 9″	W	2	410
Triangle 38	K	Ke	32′	10′	3′ 5″	F	G	480
Truant Class	K	S	30′ 4″	8′ 10″	4′ 9″	W	2	424
T-21	K	S	20′ 4″	6′ 9″	3′ 6″	W	2	180
Vagabond	K/CB	S	21′	7′ 6″	4′	W	4	243
Valencia	K	S	39′ 6″	11′ 2″	5′ 10″	W	5	722
Valkyrie	CB	S	29′ 6″	10′	2′ 3″*	W	6	415
Vedette	K/CB	S or Y	23′ 11″	7′ 9″	4′ 6″	F	4	276
Venturer	K/CB	Ke	38′	11′	2′ 8″	W	6	635
Victory	K/CB	S or Y	37′ 6″	10′ 9″	4′ 6″*	F	6	660
Victory Class	K	S	31′	7′	4′ 9″	W	—	450
Viking Class	K	S	23′ 4″	7′	3′ 6″	W	3	284
Viking 23	CB	S	24′ 4″	7′ 10″	1′ 10″	W	4	258
Viking 28	CB	S	29′	9′ 7″	2′ 1″	W	6	325
Vineyard Sound Interclub	K	S	28′ 3″	7′ 4″	4′ 6″	W	2	391
Visitor	K	S	29′	8′	4′ 6″	W	2	372
Vitesse 40	CB	Y	40′ 8″	11′ 9″	4′	F	6	778
Vixen	K	S	32′ 3″	8′ 6″	5′ 6″	W	4	486
Voyager	K	S	44′ 3″	10′ 7″	6′ 3″	W	6	880
Wayward Wind	CB	S	22′ 6″	7′ 8″	2′ 8″	W	4	—
Weekender	K	S	35′	9′ 6″	5′ 6″	W	6	562
Weekender 20	CB	S	20′ 6″	7′	1′ 4″*	W	4	165
West Solent	K	S	34′ 6″	7′ 6″	5′	W	—	567
Whistler Class	CB	S	23′	7′ 6″	3′ 7″*	W	3	235
Winter Harbor 21	K	S	31′	7′	5′ 6″	W	4	516
X-Touché	K/CB	S	48′	13′ 6″	4′ 7″	W	8	1068
Yankee One-Design	K	S	30′ 6″	6′ 6″	4′ 6″	W	2	312
Zeeland	K	Y	37′	—	—	St	6	500
Zenith Clipper	CB	S	32′	10′ 6″	—	W	4	464
Zephyr	CB	S	36′	10′ 6″	4′	F	6	552

Key

K—keel
CB—centerboard
Ca—catboat
S—sloop
Y—yawl
Ke—ketch
Cu—Cutter
Sc—Schooner

OTHER CRUISER-RACERS AND AUXILIARY CLASSES

A—Aluminum
W—wood
St—steel
F—fiberglass
LOA—length overall
K/CB—combination keel and centerboard

*—Centerboard down
***—for sloop

CHAPTER 8

One-Design Class Catamarans

No hotter controversy exists in sailing circles today than the case of the conventional type of hulls or monohulls (discussed in Chapter 2) versus those of catamarans or multihulls. Many old sailors can't consider catamarans as true sailboats. While they may have a point, no book or class or one-design sailing craft today would be complete without mention of this type of boat.

What's a catamaran? According to *Webster's New International Dictionary,* a "catamaran" is defined as: "1. a kind of raft or float, consisting of two or more logs or pieces of wood lashed together, and moved by paddles or sails, used as a surfboat and for other purposes on the coasts of the East and West Indies and South America. 2. Any vessel with twin hulls side by side, whether propelled by oars, sails, or steam; especially, one of a class of pleasure boats, remarkable for speed, having two hulls joined by a light framework which supports the mast. 5. A scolding, quarrelsome person, especially a woman." The last definition seems to have nothing to do with boats . . . or does it?

The catamaran was used centuries ago in the Pacific and Indian Oceans by primitive tribes. However, it is only in recent years that the catamaran has been perfected to perform in various wind conditions and on all points or positions of sailing.

For those unfamiliar with the modern sailing catamaran, the craft consists of two separate hull units rather than the one hull of a conventional boat. When turned upside down, the "cat," as it usually is called, gives the appearance of two broad-beamed planing hulls joined side by side with an indention or a tunnel in the place of the keel of the standard type of construction. Viewed from broad abeam, the catamaran looks almost like an ordinary boat. However, when viewed from the bow, the

At the start of a heat in the One-of-a-Kind race, a Tiger Cat can be seen in center background. It finished first on corrected time, ahead of Cougar Cat in overall standing

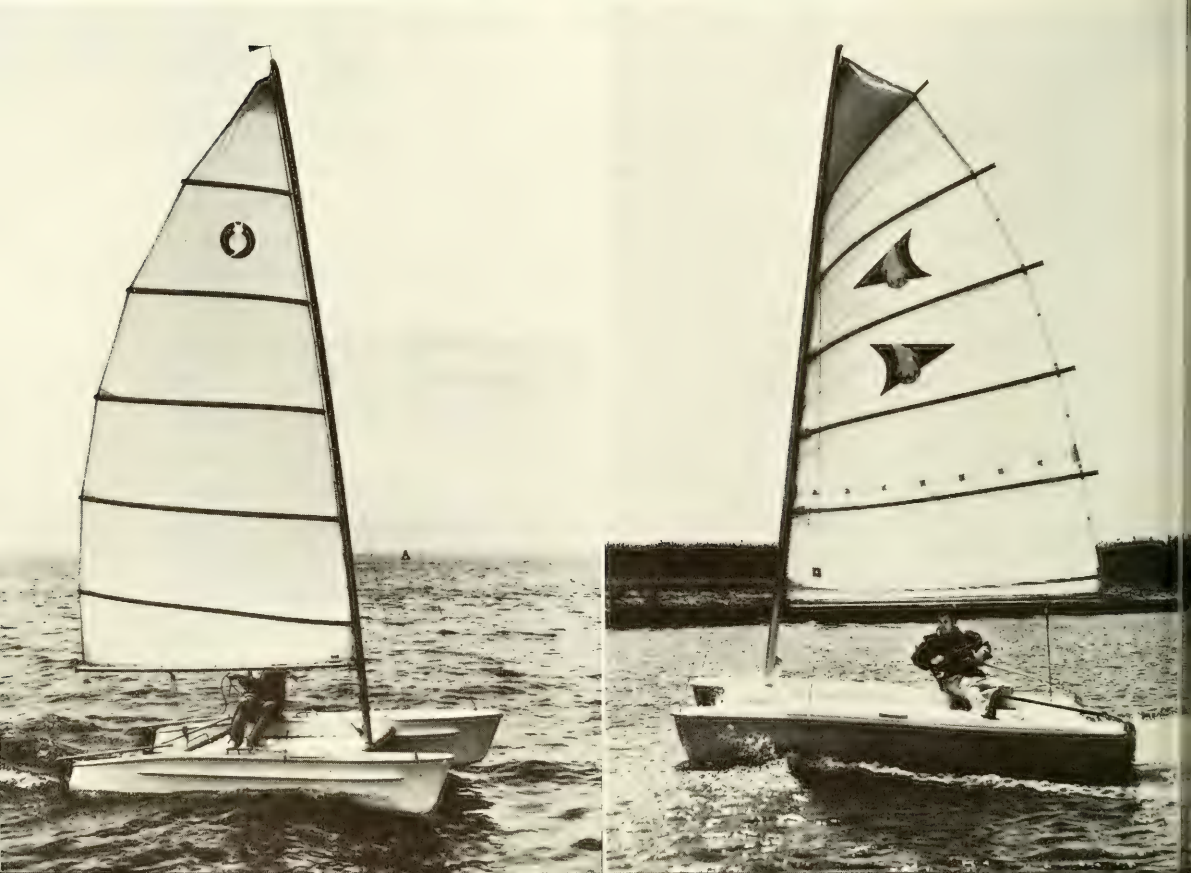
tunnel between the two hulls can be clearly seen. The majority of the present designs tend toward the use of modified V forms for the two hulls though some designers stick to the older plan which looks like two pontoons with a tunnel between. There are several variations from these two basic designs—all, however, use the principle of the air passage between two basic hulls. The purpose of the tunnel is to generate lift and produce a smooth, faster ride. The hulls are constructed from fiberglass, wood and plywood—sheet and molded plywood.

The big question: Are two hulls better than one? The sailing catamarans, like the other hull designs discussed in Chapter 2, have assets and drawbacks, but the assets are rather impressive. When they first made their appearance in numbers, sailing cats were treated as a novelty craft; that was, until they consistently out-raced monohull sailboats. For instance, in *Yachting* Magazine's One-of-a-Kind Regatta, the twin-hulls did very well. While the boat for boat winner was a 38-foot Class A scow, on corrected time which made allowance for the comparative size of boats, catamarans cleaned up with a Tiger Cat placing first, a Cougar Cat second, and a Shearwater III fourth.

The old conceptions that multihulls won't go well to windward or tack easily have been dispelled in recent regattas. As an example of catamaran speed and sailing qualities, one day in Larchmont Race Week furnished a good sailing breeze from the southwest, and the committee sent the cats around the same 12-mile, windward-leeward course as the larger craft. The winning catamaran covered this distance in less time than the leading boats in all other classes—about ½ minute better than the 33-foot International one-design, over 2½ minutes better than the 210, nearly 4 minutes ahead of the Raven, and 13½ minutes before the Star. This is all the more noteworthy because the type of course did not permit the cats to reach, and thus show their best speed. Off the wind, speeds of 20 knots have frequently been recorded.

Of course the first thing that comes to mind: Why all the speed from

Two one-design catboat rig catamarans: the Aero Cat (*left*) and the Whisker (*right*)



Two one-design sloop rig catamarans: the Cougar (*left*) and Flying Cat (*right*)

a catamaran? First, its twin-hulls give it virtually the speed of two boats with not much more wetted surface area than one. Since resistance at high speeds is primarily a matter of wave formation, the narrower the hulls and the straighter the run, the faster you'll go. For water doesn't like to be pushed apart, or bent. Comparisons of narrowness (potential speed) are easily made by relating a hull's waterline beam to its waterline length. A beam that's one-twelfth of length gives good performance. A beam that's one-thirteenth of length would be even faster, while a waterline beam one-eighth of length would be noticeably slow for a catamaran.

With regard to having a straight run, you want the water to be bent as little as possible aft of amidships, not only along the keel but also at water level. Hence the desirability of transom sterns of approximately full beam. Other considerations contributing to high-speed performance are: 1. The sharpness of the entry at each bow; 2. Sufficient distance between the hulls to minimize interference between the bow waves; 3. Sufficient vertical clearance between the water and the underside of the cockpit to prevent "belly drag"; 4. and last, but not least, the matter of total weight aboard—for surprisingly light weight helps at high speeds much more than in light air. Among monohull sailboats, the bigger they are the faster they go, and the smaller they are the slower they go (see page 000). Likewise with catamarans—but even more so. For, as you cut down on overall length, you soon come to a size that ceases to benefit from being a catamaran. The joker here, of course, is that you and your crew weigh just as much aboard the little catamaran. Hence, to support your weight, the beam of each hull of the small cat must be relatively much fatter than one-twelfth of its length. So you no longer have truly narrow hulls with sharp entries. Furthermore, whatever surface waves there are will bother any small cat out of all proportion to its slightly smaller size, and especially with regard to the way a small cat "hobby horses" while going to windward.

Good performance in light air is achieved by: 1. reducing underwater resistance; and 2. increasing sail-power. Underwater resistance at slow speeds is primarily a matter of the number of square inches of "wetted area." Since the least amount of wetted area for a given displacement is in the shape of a hemisphere, it follows that the least amount of wetted area for a catamaran will be obtained if: 1. the underwater cross section of

each hull is in the shape of a semicircle; and 2. the underwater profile of each hull rises toward both bow and stern. Wetted area is also reduced by lightweight construction, and on some catamarans by having the extension tillers arranged in such a way that the skipper as well as the crew can move his weight forward.

To increase sailpower for light air, good catamarans do three things simultaneously: 1. they have larger actual sail area; 2. they have full-length battens that give shape to the mainsail even in a calm; and 3. they have a streamlined mast that rotates from tack to tack.

Speed isn't the only advantage of multihulls. Their tremendous stability in all kinds of weather made sailors take notice. As has already been discussed, a monohull or conventional sailing hull obtains its stability from two factors: displacement and freeboard. As a general rule, the greater the displacement and the higher the freeboard, the more stability the craft has. The multihull, on the other hand, relies almost exclusively on only its wide beam for its self-preservation. It has practically no displacement—one of the major reasons that it's able to accelerate so rapidly. It has very little weight and no, or little, freeboard in the ordinary sense of the term.

If you compare the beam of a 16-foot one-design Comet and the average 16-foot catamaran you'll find that the Comet has a beam of 5 feet and the catamaran 7 feet, 6 inches. In other words, the Comet's beam is a little more than one-third of its length, while the catamaran's beam is very nearly one-half of its length. Not only this, but the outside edges of the catamaran are so much more buoyant than those of a conventional hull. If an ordinary sailboat is heeled to the point where the leeward gunwale goes under the water, the boat's cockpit will start to fill unless it's protected by side decking. You don't have this worry with a catamaran since there's no cockpit, in the true sense of the word, to fill. The helmsman and crew, of course, sit on a deck supported between the twin hulls.

Most catamarans are equipped with a daggertype centerboard. Some catamarans are equipped with drop rudders which can be lowered or raised to the required depth by the helmsman at any time, even while sailing. Other cats have fixed rudders. Both rudders are controlled by a single tiller and can be operated on either side of the craft.

Most good catamarans are fitted with fully battened mainsails (*below*). Deck arrangement of typical catamaran (*above*)

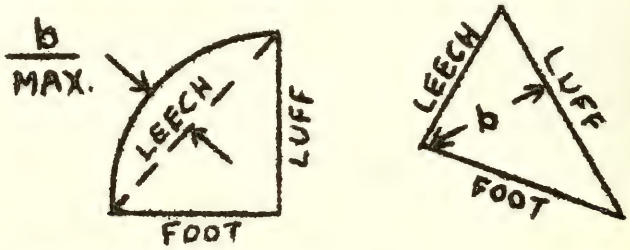
Catamarans, as shown by the Swift one-designer, can be easily transported by an auto trailer

As previously stated, most good catamarans are fitted with fully battened mainsails. This helps to insure the correct airfoil shape, eliminates slatting and flutter and enables the use of an extensive roach. To suit their ample beam, cats are often fitted with a fairly long slide along which the mainsheet block is free to travel. The purpose of this is to make it possible to keep the boom well down when sailing free before the wind and to control more exactly the angle of the mainsail. This arrangement usually allows the amount of travel to be controlled from either side of the catamaran. When short tacking, the amount of slack allowed should be cut to six inches on either side of the boat's centerline. On some catamarans there are special arrangements for adjusting the tension on the luff of the jib by means of a downhaul on the tack.

To make catamarans transportable, specially designed trailers are available. The beams of most catamarans are within maximum highway limitations. Some of the smaller cats can be mounted on a car-top carrier.

MAJOR ONE-DESIGN CLASS

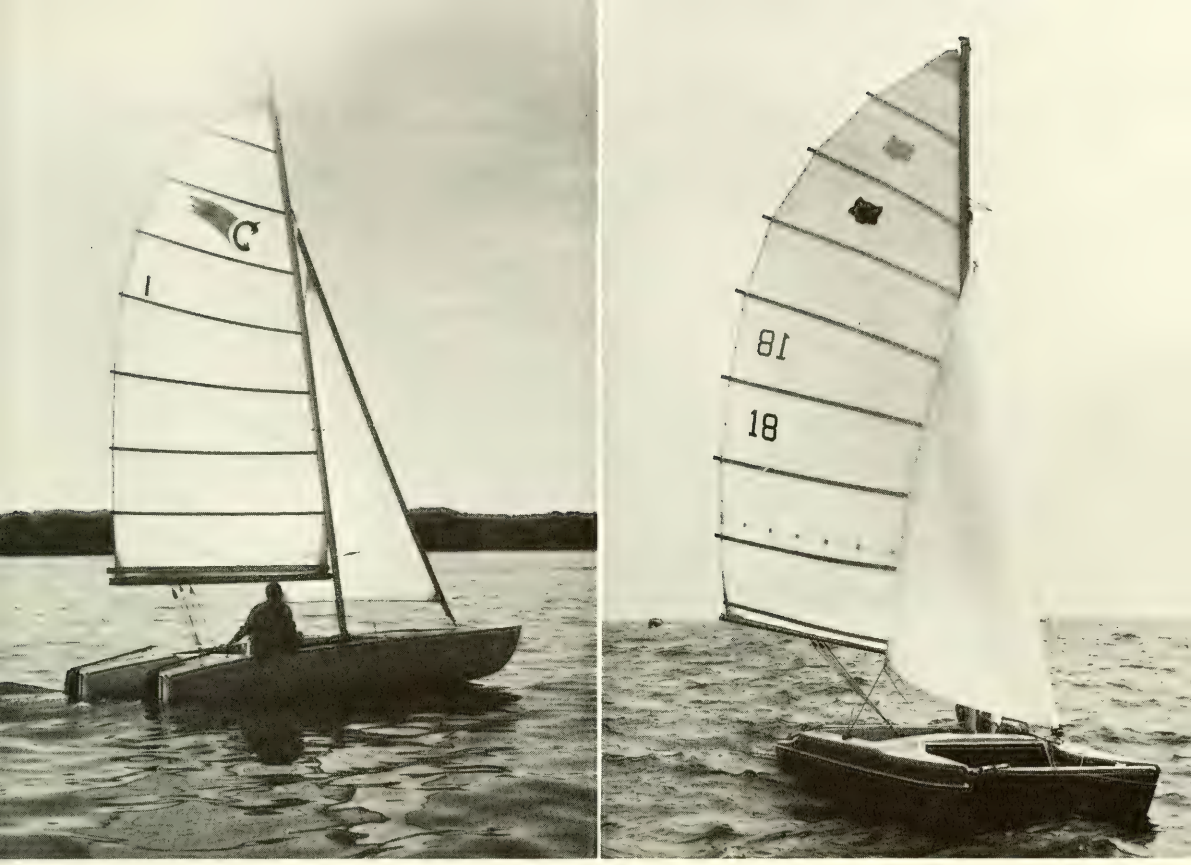
Because catamarans are a late entry on the sailing scene, there are few racing associations formed. This is due: 1. to the lack of concentration in any given area; and 2. the design problems that arise when their solutions require changes in sail plan, hull form and other features, making it difficult to set class standards. But, as the popularity of cats increases, racing regattas are bound to get started. Actually, many yacht clubs have added catamaran starts to their regatta schedule, and they have even been included in the big race weeks at Larchmont and Marblehead in the East and at San Francisco Bay in the West.



Sail measurement for handicap rule used by the Eastern Multihull Sailing Association

Where there is a variety of catamarans, and not enough for separate classes, they are usually raced in an open catamaran class with some type of handicap. The handicapping system employed by the race committee may vary greatly and all too often, favors one class. Also, as noted previously, the larger boats will usually outperform the smaller ones even with well formulated handicaps. For this reason, it is a good idea to have the catamarans grouped closely according to size, with at least two groups, starting at different times. Sixteen feet has been most widely accepted as the dividing point of sizes when handicapping.

At the present time there are three different organizations governing overall catamaran racing in North America. They are the Pacific Catamaran Association on the West Coast, the Eastern Multihull Sailing Association in the East and the Canadian Catamaran Association in



Two of the most popular catamarans: the Cougar MK III (*left*) and the Tiger Cat (*right*)

Canada. These three groups are working closely together and may soon merge into one group to control multihull racing in North America. The individual catamaran classes, of course, would each have their own association and control regulations for their own particular class.

There are several handicap rules being employed, but the one recommended by the Eastern Multihull Sailing Association is used. This one, with minor variations, has been derived from the One-of-a-Kind Regatta rules and is as follows:

$$\text{Rating} = \frac{\text{LOA} + 1.3\sqrt{\text{Sail Area}}}{2}$$

Sail area is the actual area of mainsail and jib measured as follows: Main Area = ½ foot × luff plus .6b (roach at widest point) × measured leech where r is measured perpendicular to leech. Jib Area = ½ luff × b where b is measured perpendicular to luff.

Note: Boats not carrying spinnaker are allowed 10 per cent credit off the total sail area.

All handicapping, at best, is an empirical device and no handicap rule is perfect. Results of handicap races are being tabulated by the various associations and possibly in the future a more satisfactory rule may be worked out.

The following are the specifications of the more common designs or classes that either have formed class associations or may do so in the near future:

Class	Cut or Sloop Rig	Overall Length	Beam	Draft	in Square Feet Sail Area
Aero Cat	C	12′	7′ 7″	5½″	115
Aqua Cat	C	12′ 2″	6′	5″	78
Car-Cat	C	11′ 3″	5′ 9″	8″	75
Catalina*	S	16′	6′ 8″	3′ 2″***	234
Cheetah*	S	14′ 1″	7′ 11″	7½″	185
Cougar*	S	17′ 9″	7′ 6″	2′ 8″***	155
Cougar Mark III*	S	18′ 9″	7′ 11″	2′ 8″***	220
Fleetcat	S	18′	8′	8″	400
Flying Cat	S	16′	8′	7″	200
Flying Fox	S	14′	5′ 6″	11″	114
Frolic**	S	16′	8′	3′ ***	140
Gypsy	S	16′	8′	1′	175
Jet Cat	C	17′	7′ 10″	—	235
Jumpahead*	S	16′	7′ 6″	8″	167
Kalua	S	16′	7′ 9″	—	160
Manu Kai 23	S	23′	9′ 8″	1′ 2″	—
Pacific Cat*	S	18′	7′ 11″	2′ 11″***	256
Polycat	S	18′	8′	1′	192
River Cat	S	12′	6′ 4″	8″	121
Scamper	C	12′	6′	—	85

Shearwater III*	S	16′ 6″	7′ 6″	—	160
Swift*	S	14′ 6″	5′ 10″	2′ 10″***	120
Tiger Cat*	S	17′	8′	3′ 1″***	192
Tiki*	S	12′ 1″	6′	4″	139
Trimar 24**	S	24′ 6″	—	7″	200
Waverider	S	16′	8′	1′	160
Whisker	C	11′ 6″	5′ 9″	7″	87
Wild Cat*	S	17′ 9″	7′ 11″	—	176

*Class association already organized. For information, write the *Eastern Multihull Sailing Association, 148 Raff Avenue, Mineola, New York* or the *National Association of Engine and Boat Manufacturers, Inc., 420 Lexington Avenue, New York 17, New York.*

**Trimarantype multihull

***Centerboard or boards down

Appendix

Bibliography of Sailing Books

GENERAL SAILING TECHNIQUE

The ABC's of Boat Sailing, Herbert L. Stone. Dodd, Mead & Company, Inc.

Boat Sailing, William F. Crosby. The Rudder Publishing Company

Deep Sea Sailing, Eroll Bruce. D. Van Nostrand Company, Inc.

Guide To Sailing, Leonard Fowle. Chilton Company

How To Sail, Carl D. Lane. W. W. Norton & Company, Inc.

Learning To Sail, H. A. Calahan. The Macmillan Company

Learning To Sail Is Fun, George D. O'Day. Grosset & Dunlap, Inc.

The New Small Boat Sailing, John Fisher. John deGraff, Inc.

Sailing, E. F. Knight. E. P. Dutton & Company, Inc.

Sailing, William Wallace. Golden Press, Inc.

Sailing Illustrated, Gabor Denes. A. S. Barnes & Company

Sailing Made Easy, Rufus G. Smith. Dodd, Mead & Company, Inc.

The Sailing Primer, Rosemary and Steever Oldden. Cornell Maritime Press

Sailing Technique, H. A. Calahan. The Macmillan Company

Sailing Yachts, A. Coles and D. Phillips-Birt. John deGraff, Inc.

The Science of Sailing, William Robinson. Charles Scribner's Sons

Second Book on Sailing, Gordon C. Aymar and Gordon C. Aymar, Jr. Ronald Press Company

Start'em Sailing, Gordon C. Aymar. Ronald Press Company

Starting To Sail, John Fisher. John deGraff, Inc.

Yacht Sails: Their Care and Handling, Ernest A. Ratsey and W. H. deFontaine. W. W. Norton & Company, Inc.

SAILBOAT RACING

The New Yacht Racing Rules, Robert N. Bavier, Jr. W. W. Norton & Company, Inc.
Ocean Sailing and Racing, C. F. Mason. The Macmillan Company
Race Your Boat Right, Arthur Knapp, Jr. D. Van Nostrand Company, Inc.
Racing at Sea, Everett B. Morris and Robert Coulson. D. Van Nostrand Company, Inc.
Sailing To Win, Robert N. Bavier, Jr. Dodd, Mead & Company, Inc.
Scientific Sailboat Racing, Ted Wells. Dodd, Mead & Company, Inc.
Successful Yacht Racing, C. Stanley Ogilvy. W. W. Norton & Company, Inc.
Summer of the Twelves, Carleton Mitchell. Charles Scribner's Sons
The Thirty Million Cup, Jerome Brooks. Simon & Schuster, Inc.
Thoughts on Small Boat Racing, C. Stanley Ogilvy. D. Van Nostrand Company, Inc.
Yacht Racing, Manfred Curry. Charles Scribner's Sons
Yacht Racing Rules and Tactics, Gordon C. Aymar. D. Van Nostrand Company, Inc.

CATAMARANS

Modern Sailing Catamarans, Robert B. Harris. Charles Scribner's Sons
Catamarans, John Fisher. John deGraff, Inc.